DOCUMENT RESUME

ED 355 628 EA 024 727

TITLE	The Essential Components of a Successful Education System: Putting Policy into Practice.
INSTITUTION	Business Roundtable, New York, NY.
PUB DATE	Dec 92
NOTE	39p.; For a related document, see EA 024 726.
PUB TYPE	Reports - Evaluative/Feasibility (142)
EDRS PRICE	MF01/PC02 Plus Postage.
DESCRIPTORS	Access to Education; *Educational Improvement; Educational Planning; Elementary Secondary Education; Participative Decision Making; Preschool Education; *School Business Relationship; *State Action; *State Departments of Education; *Strategic Planning
IDENTIFIERS	*Educational Restructuring; National Education Goals 1990; *Outcome Based Education

ABSTRACT

In September 1989, the Business Roundtable committed to a 10-year effort to work with state policy makers and educators to restructure state education systems and ensure that all students achieve at high levels. To guide this effort and achieve the 1990 National Educational Goals, the Roundtable adopted nine essential components of a successful education system. First, a successful education system assumes that: every student can learn at significantly higher levels and can be taught successfully; high expectations for every student are reflected in curriculum content, though instructional strategies may vary; and every student and every preschool child needs an advocate--preferably a parent. Furthermore, a successful system contains the following components: it is outcome-based; uses strong and rich assessment strategies; rewards schools for success, helps schools in trouble, and penalizes schools for persistent or dramatic failure; involves school-based staff in instructional decisions; emphasizes staff development; provides high-quality prekindergarten programs, at least for every disadvantaged child; provides health and other social services sufficient to reduce significant learning barriers; and uses technology to raise student and teacher productivity and expand learning access. This report describes state policies exemplifying these nine components and state-level strategies for achieving them, highlighting Kentucky's reform plan. An executive summary is appended. (Contains 38 references.) (MLH)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED355628

The Business Roundtable

The Essential Components of a Successful Education System:

PUTTING POLICY INTO PRACTICE

EA 024 727

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

☑ This document has been reproduced as received from the person or organization originating it.

☐ Minor changes have been made to improve reproduction quality.

• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

N. Hutt

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

The Business Roundtable

The Essential Components of a Successful Education System:

PUTTING POLICY INTO PRACTICE

Acknowledgments

The Business Roundtable [illegible]
its contract for the National Alliance of Business and to thank the many state [illegible] who provided guidance on the project by reacting to the policies and programs mentioned in the publication, providing updates on those policies and programs, providing insight into state-level strategies for effecting change, and reviewing drafts of the book.

The Business Roundtable would like to thank the National Alliance of Business [illegible] for editing the publication, and Frederick J. Edelstein and Mina B. Lloyd for assisting in the research.

This is a publication of The Education Task Force of The Business Roundtable, chaired by Joseph T. Gorman, Chairman and CEO, TRW Inc.

Additional information on The Business Roundtable education initiative is available from:

The Business Roundtable
1615 L Street, NW
Suite 1350
Washington, DC 20036
(202) 872-1260

Table of Contents

Introduction	**1**
Policies that Exemplify the Nine Essential Components	**3**
The Nine Essential Components of a Successful Education System	4
1. A successful educational system operates on four assumptions:	4
Every student can learn at significantly higher levels.	4
Every student can be taught successfully.	4
High expectations for every student are reflected in curriculum content, though instructional strategies may vary.	4
Every student and every preschool child needs an advocate—preferably a parent.	5
2. A successful system is performance or outcome based.	6
3. A successful system uses assessment strategies as strong and rich as the outcomes.	7
4. A successful system rewards schools for success, helps schools in trouble, and penalizes schools for persistent or dramatic failure.	8
5. A successful system gives school-based staff a major role in instructional decisions.	9
6. A successful system emphasizes staff development.	10
7. A successful system provides high-quality prekindergarten programs, at least for every disadvantaged child.	11
8. A successful system provides health and other social services sufficient to reduce significant barriers to learning.	12
9. A successful system uses technology to raise student and teacher productivity and expand access to learning.	13
The Kentucky Approach	14
State-Level Strategies for Achieving the Nine Essential Components	**17**
Develop Internal Awareness and Knowledge	18
Join or Form a Coalition	19
Develop Relationships with the Key Stakeholders	20
Establish a Comprehensive Agenda that Includes the Essential Components	20
Develop a Strategic Plan	21
Implement the Plan	22
"Lessons Learned"	24
Appendices	**26**
Essential Components of a Successful Education System	26
Resources and Reference Sources for the Policy Examples	30
Reference Materials	32

Introduction

In September 1989, The Business Roundtable committed to a ten-year effort to work with state policy makers and educators to restructure state education systems and ensure that all students achieve at high levels. To guide that effort, the Roundtable adopted, in September 1990, nine Essential Components of a Successful Education System (see the Appendix for the complete text containing more detailed information):

1. **A successful education system operates on four assumptions:**
   - *Every student can learn at significantly higher levels;*
   - *Every student can be taught successfully;*
   - *High expectations for every student are reflected in curriculum content, though instructional strategies may vary; and*
   - *Every student and every preschool child needs an advocate—preferably a parent.*
2. **A successful system is performance or outcome based.**
3. **A successful system uses assessment strategies as strong and rich as the outcomes.**
4. **A successful system rewards schools for success, helps schools in trouble, and penalizes schools for persistent or dramatic failure.**
5. **A successful system gives school-based staff a major role in instructional decisions.**
6. **A successful system emphasizes staff development.**
7. **A successful system provides high-quality prekindergarten programs, at least for every disadvantaged child.**
8. **A successful system provides health and other social services sufficient to reduce significant barriers to learning.**
9. **A successful system uses technology to raise student and teacher productivity and expand access to learning.**

These components reflect the best research, thinking, and practice arising from the education community. They were refined based on extensive input and discussion from educators, policy makers, and business leaders. The Essential Components of a Successful Education System have been adopted by a number of other major business organizations, including the Business Coalition for Education Reform (comprising 11 national business organizations), and have been endorsed by the Education Leaders Consortium (comprising national organizations representing the leadership in school administration).

These components serve as a nine-point agenda for educational change, a blueprint for efforts by The Business Roundtable companies and other business organizations—in cooperation with policy makers, educators, and other education stakeholders—to achieve the six National Education Goals. While the six goals represent the educational outcomes we as a nation want and need to achieve, the nine essential components provide the structure for reaching those goals.

Taken together, the nine components create an internally consistent system designed to ensure that *all* students reach world-class achievement levels. The nine components require that:

- Clear standards of success be defined and schools held accountable for ensuring that all students meet the standards.
- School staff be given the authority to make curriculum, instruction, personnel, and budget decisions, so that control and accountability are matched.
- Schools be provided with the support necessary to succeed: teachers and administrators, with adequate time and resources for staff development and planning; students, with early childhood programs, parental involvement, and health and social services; and students, teachers, and administrators, with appropriate technology.

The nine Essential Components of a Successful Education System form an integrated whole. Adopting some while ignoring others will not result in a system capable of raising the achievement of all students to world-class levels. While the components can be phased in over time, a comprehensive and integrated strategic plan for achieving all of them must be developed and then implemented.

This publication is designed to help The Business Roundtable companies and others work toward this goal. Its first section, "Policies that Exemplify the Nine Essential Components," provides examples of policies, programs, and practices that illustrate each of the nine essential components. The second section, "State-Level Strategies for Achieving the Nine Essential Components," provides guidance for working with state policy makers, educators, and other companies in the development and implementation of an education agenda.

There is no *one* set of policies, programs, and practices that should be enacted in every state. There is no clear step-by-step process for working successfully with policy makers and educators in every state. What this publication does is provide guidance. The hard work of adapting this guidance to the circumstances in each state is still up to the individual companies and their partners.

More information on the issues in education restructuring, current problems, and potential solutions can be found in *The Business Roundtable Participation Guide: A Primer for Business on Education*, which was developed for The Business Roundtable by the National Alliance of Business.

National Education Goals

By the year 2000:

1. **All children in America will start school ready to learn.**
2. **We will increase the percentage of students graduating from high school to at least ninety percent.**
3. **American students will leave grades four, eight, and twelve having demonstrated competency over challenging subject matter, including English, mathematics, science, history and geography.**
4. **U.S. students will be the first in the world in science and mathematics achievement.**
5. **Every adult American will be literate and possess the knowledge and skills necessary to compete in a global economy and exercise the rights and responsibilities of citizenship.**
6. **Every school in America will be free of drugs and violence and offer a disciplined environment conducive to learning.**

Policies that Exemplify the Nine Essential Components

As The Business Roundtable companies have begun to work in their states, they have found it helpful to articulate what an education system based on the nine essential components might look like. How would an outcome-based system *function?* What *are* "strong and rich" assessment strategies?

The policies, programs, and practices presented in this section are meant to assist those engaged in the reform process to visualize such a system. The first subsection, "The Nine Essential Components of a Successful Education System," provides examples of each component from across the country. The second subsection, "The Kentucky Approach," describes the comprehensive agenda adopted by Kentucky to implement all the components in an integrated fashion.

The examples presented here are not meant to be a comprehensive list of the best policies, programs, or practices in the country. Nor are they meant as models that can be transferred wholesale to the states. For some components, there are a number of examples, similar to the ones highlighted here, that may be just as worthy of adaptation. For other components, no existing policies *truly* exemplify the ideas embodied by the components. In these cases, the examples provide a starting point from which to work. In fact, most of the state, local, and program examples highlighted here should be thought of as "pathfinders," or models, from which good ideas can be gleaned, and which still need some modification before they are truly in line with the nine essential components.

No matter which examples a state chooses to build upon, successful education restructuring requires a comprehensive and integrated agenda encompassing *all* nine components. Addressing a few components while ignoring others will not improve educational outcomes. Additionally, states cannot just choose randomly from the examples presented here. They must be sure that the approaches they use to address each component are compatible with the approaches they choose to address the others.

Companies must recognize that all policies will have to be adapted to the circumstances—economic, social, *and* political—of the states with which they are working. State policy makers and educators have been operating their education systems for decades, and working on education reform initiatives for years. As companies work to get these players to embrace the nine essential components, they must understand the work that has gone before, and look for ways to build upon and modify existing initiatives to encompass the nine components.

The Nine Essential Components of a Successful Educational System

Models for individual components exist in a number of places. Roundtable companies can gain insight from these separate initiatives as they work with others to develop comprehensive plans that encompass all nine components.

1. A successful education system operates on four assumptions:

Every student can learn at significantly higher levels.

Unless we enter the educational enterprise assuming that all students can succeed, including those with whom we have historically failed, we will not be able to raise the performance of all students.

Just as "zero defects" is becoming common language in manufacturing, commitment to "no failures" is finding its way into the language of more and more state legislation and government policies.

MARYLAND. The 1991 Maryland School Performance Program Report states that "The Maryland State Board of Education believes that public education must ensure success for all students."

UTAH. Utah's 1992 *Strategic Planning* *for Public Education Act* states that "It is the intent of the Legislature to assist in maintaining a public education system that ... assumes that all students have the ability to learn and that each student departing the system will be prepared to achieve success in productive employment, further education, or both."

This language clearly embodies the vision that all children can learn, but most states must still develop education systems to meet this ambitious goal and commit the necessary resources to make these systems succeed. One model is the **Accelerated Schools Project**, designed to bring *all* children into the competitive education mainstream. Instead of slowing the pace for lower-achieving students through remedial classes, these schools seek to accelerate student learning through creative school organization, stimulating curricula, and powerful instructional techniques. The Accelerated Schools Project now operates in more than 140 elementary and middle schools across the nation. Illinois, Massachusetts, and Missouri have started their own accelerated schools networks, to provide participating schools with support and training.

Every student can be taught successfully.

Many teachers and schools across the United States are successfully serving children from every conceivable type of background. The challenge then is not to invent new practices, but to identify the already successful ones and to train school staff elsewhere to adopt them. The continued search for new knowledge about teaching and learning cannot excuse failures to use what we already know.

As states recognize that all students can and must learn, they are insisting that their education systems develop the capacity for teaching all students.

ARKANSAS. The 1991 act *Meeting the* *National Education Goals: Schools for Arkansas' Future* states that Arkansas' education system will need "... to apply methods that are appropriate to ensure that all students will master the more challenging curriculum."

OREGON. The intent of the 1991 *Oregon* *Educational Act for the 21st Century* is "... to maintain a system of public elementary and secondary schools that ... provides special education, compensatory education, linguistically and culturally appropriate education and other specialized programs to all students who need those services."

Again, adopting the appropriate language is only a first step; effective programming and appropriate staff development still must follow. Johns Hopkins University's **Success for All** program seeks to ensure that all children succeed the first time they are taught. Designed for youth in very poor communities, Success for All focuses on teaching reading and writing through small-group, cooperative learning. It provides mentors, tutors, and family support services to ensure that no students fall behind. Success for All is now operating in 50 schools in 14 states throughout the country.

High expectations for every student are reflected in curriculum content, though instructional strategies may vary.

We should expect all children to learn challenging material. But who teaches, how we teach, and where and when teaching and learning occur, should vary for different students, classrooms, and schools.

In most school systems today, time is the constant, and student achievement the variable—that is, a child spends 180 days in third grade and then moves to fourth. Some children learn much faster and must wait to move forward, while others do not learn material adequately but are moved to fourth grade anyway. What is needed are systems that hold achievement constant, with time the variable. A few states have begun to implement such systems.

OREGON. The 1991 *Oregon Educational Act for the 21st Century* provides for combined kindergarten-through-third-grade classes and supplemental services (including the possibility of additional school time) for children not making satisfactory progress in their studies. The combination classes were introduced in response to research showing improved self esteem in such situations, and therefore improved student learning. The combination classes are not mandatory, and are expected to be phased in over time. Only 10 schools have received grants to implement the combination class program as yet, though other schools are implementing it as well. Additional services for children not making satisfactory progress have yet to be implemented. The State Department of Education is researching current programs and expects to have legislation introduced in 1993 to implement and fund needed changes.

Nationally, the **Coalition of Essential Schools**, formed by Theodore Sizer, provides support and guidance for a network of schools pursuing school- and classroom-based reform. Coalition members are committed to a common set of principles that stress the personalization of learning to individual students. All children are expected to use their minds and master essential skills. Teachers serve as coaches helping students learn how to teach themselves. Approximately 400 schools in 26 states are part of the Coalition. Through Re:Learning, the Education Commission of the States assists states to adopt administrative and policy changes supportive of coalition schools.

Every student and every preschool child needs an advocate—preferably a parent.

Children cannot succeed without help. Parents are the best source of such help. Where parental support is insufficient, another individual must serve as the child's advocate. Children need to be read to and talked to, nurtured and cared for. They need to know that education is valued by people whose opinion they respect. They also need someone who will help them through the education system, someone who will talk with teachers and principals on their behalf.

Numerous programs exist to help parents fulfill their parental roles, to support parental involvement in education, and to provide alternative advocates for children whose parents need assistance. However, only a few states have policies to ensure that all students get the support they need.

CALIFORNIA. In January 1991, California passed legislation requiring *all* school districts to implement programs to involve parents in their children's education. To support the parent involvement programs, the state conducted conferences, trained administrators, and published a resource directory on family involvement. Districts are required to train teachers and administrators in communication skills, and to train trainers to educate parents on good parenting skills, including home learning opportunities. Approximately 300 schools are operating fall institutes for parents with their program improvement funds under Chapter 1 (a federal government program to provide supplementary educational services to educationally disadvantaged children).

MINNESOTA. Minnesota has approached the parental involvement issue from two directions. A 1990 state law requires employers to provide employees with up to 16 hours of leave per school year to attend school conferences or classroom activities that cannot be scheduled during non-work hours. Additionally, the state's 1991 *Parental Involvement Law* requires districts to use $5 per pupil of their state-supplied revenue to fund parental involvement programs.

MISSOURI. In 1984, Missouri became the first state in the nation to mandate parent education and family support services in every school district. Parents as Teachers serves families with children from birth to age three by suggesting parent activities that encourage children's language, cognitive, and social skills development. The program also provides periodic developmental screening to assure early detection of potential problems that might cause difficulty later in children's education.

At the local level, Baltimore's **Project Raise** (Maryland) provides school-based advocates and one-on-one mentors to economically disadvantaged children. And **Project Mentor** (Texas), now administered by the Austin Independent School District, coordinates the services of approximately 2,000 mentors and covers 93 of the district's 94 schools.

Nationally, the **"I Have a Dream"** program links caring adults (Sponsors)

to entire inner-city classes of elementary school children (Dreamers) for at least ten years. The Sponsors provide sustained personal relationships plus the scholarship support needed to assure college opportunities. Participating Dreamers also receive a continuing program of academic, cultural, social, and recreational activities to encourage them to stay in school, learn, seek higher education, and define viable career objectives. From philanthropist Eugene Lang's initial sponsorship of one class of students in 1981, the "I Have a Dream" program has grown to include almost 200 Sponsors of 156 Projects in 46 cities embracing over 10,000 Dreamers.

The **School Development Program**, developed by James Comer, is designed to address children's psychological preparation for school, and relies on the collaboration of school staff and parents to meet children's academic and social needs. The School Development Program is built around three elements: a school governance team, which includes parents, teachers, administrators, and support staff; a mental health team; and broad parental participation. More than 200 schools in 25 districts in 18 states and the District of Columbia are participating in the School Development Program.

2. A successful system is performance or outcome based.

If we are to succeed in raising students' achievement to world-class levels, we must begin measuring education in terms of outcomes. The first step is to define, in measurable terms, what we want young people to know and be able to do. While this section only discusses the definition of outcomes, it is important to recognize that these definitions must be linked to the other components. Outcome definitions serve as the base for many of the other components; in particular, assessments must be designed to measure student performance against the desired outcomes (component 3), and staff must be prepared to help children acquire the skills defined by these outcomes (component 6).

States have approached the task of defining outcomes in a number of ways. In the past, many states established "curriculum frameworks" that defined the material and reasoning skills students should master in each of the traditional disciplines. Today, however, many states are moving toward establishing "common cores of learning," or interdisciplinary definitions of what students should know and be able to do; and "mastery" definitions of the skills and knowledge students will have to acquire in order to graduate.

MAINE. Maine's Common Core of Learning defines the knowledge, skills, and attitudes graduating high school students should possess to be productive citizens. The Core is divided into four categories that cut across the familiar subject areas:
(a) personal and global stewardship (awareness and concern for oneself, others, and the environment);
(b) communication; (c) reasoning and problem solving; and (d) the human record (human actions, events, thoughts, and creations, as they have evolved through time). The Commission on Maine's Common Core of Learning, composed of 45 individuals from education and the wider community, spent the greater part of 1989 developing the Core. They read about current issues in the content areas, took public comment at eight regional forums, and listened to 38 student readers from three high schools. Because it will take some time for the Common Core to change the way education is delivered, the state is now engaged in building awareness of the Core and an understanding of the systemic change process.

MINNESOTA. The Minnesota State Board of Education is developing an outcome-based graduation rule. The rule will require that, by the year 2000, all students demonstrate proficiency against a comprehensive set of standards—including standards in reading, writing, mathematical processes, and problem-solving—in order to receive their high school diplomas. State legislation requires that the proposed rule be presented to the state legislature in 1993 and again in 1994 before final adoption. Pilot sites and public input will be used to establish the standards and develop assessments by 1996. When the program is implemented state wide, districts will have the option of using the model assessments or developing their own. Minnesota's business community has been actively involved in helping to set standards and define abilities.

OREGON. Based on the Commission on the Skills of the American Workforce's report, *America's Choice: high skills or low wages!*, Oregon's 1991 *Educational Act for the 21st Century* requires the development of a Certificate of Initial Mastery by the end of the 1996–97 school year. To earn their certificates, students will have to pass a series of performance-based assessments at grades three, five, eight, and ten that document their progress in mastering academic subjects, critical thinking, problem solving, and communication skills. The certificates, which students could apply for by age 16 or upon completing grade ten, would be

required for entry into college preparatory and academic professional technical programs. The Department of Education will convene 10 task forces comprising educators, business people, community representatives, teachers, classified employees, and students to define the skills and develop the assessments to implement this program.

PENNSYLVANIA. In March 1992, the Pennsylvania State Board of Education adopted regulations that would require students to master a set of learning outcomes, rather than take a prescribed number of courses, in order to graduate. The state was to complete its definition of the skills and knowledge students must attain by the fall of 1992, and officials estimate that it will take approximately three years for all school districts to begin implementing the new outcome-based system. The business community has been actively involved in the movement toward an outcome-based system, identifying and advocating on behalf of needed policy changes.

At the national level, the National Council of Teachers of Mathematics has already developed national standards in math. The U.S. Education Department, along with other federal agencies and private funders, has awarded grants for the development of standards in science, history, the arts, and English.

3. A successful system uses assessment strategies as strong and rich as the outcomes.

As the examples above indicate, outcomes and assessment are integrally related. Once outcomes are defined, assessments must be developed that adequately measure (a) students' attainment of the specified knowledge and skills and (b) the success of the schools in imparting these skills. These assessments must encompass higher expectations and reflect an emphasis on thinking and integration of knowledge, understanding of main ideas, and problem solving. They must also test student performance against objective criteria (criterion-referenced testing), not the performance of other students (norm-referenced testing).

The movement toward assessments that go beyond traditional paper-and-pencil, multiple choice tests is growing. The **National Assessment of Educational Progress** (NAEP) uses only open-ended evaluation tools (where children have to provide the correct answers themselves, rather than choose from a selection of possible answers) for its writing assessments. It included portfolio evaluations (a collection of students' work) in its 1992 writing assessment. For its 1992 math assessment, about 40 percent of students' time was spent on open-ended questions; for the 1992 reading assessment, that percentage was about 50. For all of the 1994 assessments, about 50 percent of the questions are expected to be open-ended.

The **Mathematical Sciences Education Board** (MSEB)—a national board comprised of a unique coalition of mathematics teachers and supervisors, college and university mathematicians, scientists, educational administrators, parents, and representatives of government, business, and industry—is in the process of developing assessment prototypes for fourth-grade mathematics. The prototypes would include performance-based tasks. Some would require 20 to 30 minutes to perform; others, eight to nine days. The MSEB, together with the National Council of Teachers of Mathematics, is also about to embark on development of assessment standards for school mathematics, which will probably include performance-based assessment.

A number of states are active in the development of non-traditional, criterion-referenced assessments.

ARIZONA. Under the state superintendent's leadership, the Arizona Student Assessment Program (ASAP)—a comprehensive program to improve teaching, learning, and assessment—was mandated in 1990. Based on the belief that the state should set higher student performance goals and assess them using new performance-based assessments in reading, writing, and mathematics in grades three, eight, and 12, the ASAP assessments require students to do more than pick an answer from a list of choices. Students must apply their understanding of the inter-relationship of concepts to the solutions of real problems. For more than three years, the staff at the Arizona Department of Education, in collaboration with the Joint Legislative Committee on Goals for Educational Excellence, the State Board of Education, and educators, worked to develop the specifics of ASAP.

MARYLAND. The Maryland School Performance Assessment Program was first conducted in May 1991. Used to evaluate schools, not individual students, the assessment is given to every student in grades three, five, and eight, and eventually will be expanded into high school. The assessment uses "authentic testing" (tests designed to simulate activities students would perform in the real world), not just multiple choice tests, and includes group work, individual work, teacher-led, and hands-on activities. The 1991 assessment tested reading, writing, and math skills; science and social studies

assessments were added in 1992. The assessments were developed by Maryland educators with input from the business community, and were designed to measure what students should be learning, not just what was already being taught and tested. Maryland plans to review and refine the assessments continually.

NEW YORK. Since 1989, the New York State Education Department has included hands-on manipulative skills tasks as a component of their Program Evaluation Test (PET) in science for fourth graders. The manipulative test consists of five tasks: assessing measurement, prediction from observations, classification, hypothesis formation, and observation. Students are given seven minutes to work on each of the tasks, and teachers rate the answer sheets of their own students. The PET is currently being evaluated for use in other grades.

VERMONT. Vermont introduced the use of portfolios to assess the math and writing skills of all fourth and eighth graders in the 1990–91 school year. The assessments were developed by design committees of teachers, with the assistance of national experts. Students' classroom work is included in the portfolios evaluated by the teachers. A random sample of portfolios is evaluated a second time to ensure consistency in scoring. Prior to the portfolio program, Vermont did not conduct any state-wide testing. The portfolio assessments were introduced to identify weaknesses in curricula, improve instruction, and increase the education system's accountability to taxpayers.

At the national level, the **National Council on Education Standards and Testing** released a report in January 1992, recommending that a new National Education Standards and Assessments Council be established to work with the National Education Goals Panel to "certify content and student performance standards and criteria for assessments as world class." This council would coordinate development of a system of individual student assessments, provide research and development for new assessments, certify assessments, and establish procedures and criteria for comparing various assessment systems.

In addition, the **New Standards Project** (a joint program of the Learning Research and Development Center at the University of Pittsburgh and the National Center on Education and the Economy) has brought together 17 states and six districts (encompassing over half the nation's students) to develop standards and a corresponding performance-based examination system to gauge student, teacher, school, and system performance. They are developing standards and performance-based examinations in English language arts, mathematics, the sciences, history and the social sciences, and work skills.

4. A successful system rewards schools for success, helps schools in trouble, and penalizes schools for persistent or dramatic failure.

A system based on outcomes requires an accountability system of rewards, assistance, and penalties. Success in these systems should be defined by the progress a school makes in increasing the number of its students achieving rigorous outcomes as measured by new, authentic assessments. Additionally, the accountability system must include other indicators, such as dropout rates, to ensure that schools do not raise the percentage of their successful students by encouraging their less successful students to leave.

The following state examples have *elements* that might be part of such systems of rewards, assistance, and penalties, though they do not completely capture the intent of this component.

NEW JERSEY. The 1985 New Jersey *Public School Education Act*, referred to as the Intervention/Takeover Bill, enables the state, following a formal procedure of assessments and preventive measures, to take over the operation of school districts that do not meet state-established minimum levels of performance. When this occurs, the district school board is disbanded and the state commissioner of education appoints a state superintendent for the district. The state superintendent is given broad authority with regard to staffing; this includes all personnel matters including employment, transfer, and removal of staff.

OHIO. Legislation passed in 1989 requires the Ohio Department of Education to identify excellent and deficient schools and school districts. The criteria include: (a) student achievement, (b) student and staff attendance, and (c) the dropout rate. Schools and districts found to be deficient in meeting performance standards must submit a corrective action plan to the State Board of Education. Additionally, the State Board can choose to intervene in the management of the school or district in a number of ways, including placing the district under the control of a state monitor. Schools that receive an excellent rating may request waivers from certain rules and standards. The 1991–92 school year was the first for which schools were evaluated using the new performance criteria.

SOUTH CAROLINA. South Carolina's 1984 *Education Improvement Act* and 1989 *Target 2000* legislation established an incentive program under which the state provides financial awards to schools making the largest achievement gains when compared with similar schools. With bonuses for student and teacher attendance, winning schools can receive awards of up to approximately $30 per student. When districts perform poorly, South Carolina recommends a remedial action plan (with which the district must comply or face loss of funds or removal of the district superintendent) and provides technical assistance.

As companies promote systems of rewards, assistance, and penalties in their states, they should keep in mind the following key features recommended for successful implementation:

- The individual school, rather than classrooms or districts, should be the primary unit of measuring improvement in student performance.
- An increasing proportion of successful students—including low-income, racial and language minority, and disabled students—as measured against the agreed-upon outcomes, should be the key determinant of success.
- Comparisons should be made only between an individual school's current and past performance, not between schools and districts, so that all schools have equal chances of success.
- Rewards should be commensurate with the degree of success, and might include financial bonuses as well as recognition for school staff.
- Schools that are failing should receive customized support to meet their needs, including technical assistance, increased staff training, and possibly on-site experts to help them improve.
- Penalties should be designed to accelerate improvement, and might include the loss of school staff autonomy, denial of wage increases, suspension of tenure, or dismissal of a school's faculty and administration. They should not include a reduction in the funds available to support student programs.
- A parallel system based on student performance should be established for central office administration as well.

5. A successful system gives school-based staff a major role in instructional decisions.

If schools are to be held accountable for student performance, their staffs must be given responsibility for determining how the schools are operated (consistent with the vision, goals, and principles established by the system as a whole). This responsibility should include real involvement in the selection of faculty and staff; significant budgetary control; and the authority to determine curriculum, instructional practices, disciplinary measures, the school's calendar, and student and teacher assignments. School-based decision making is not, in and of itself, education restructuring. All nine components must be addressed to create a restructured education system.

Few states have developed plans to implement school-based decision making on a state-wide basis. However, state pilot projects and district efforts could provide insights into what might be required for more widespread implementation.

MINNESOTA. As an extension of its state- wide school choice system, Minnesota adopted a "charter schools" law in May 1991. The law permits licensed teachers to form and operate autonomous public schools, free of most state and district regulations, but requires these schools to meet agreed-upon educational outcomes and health and safety rules. The law allows up to eight schools to be chartered in the state. A local school district must sponsor the school to the state board of education for authorization to proceed with a written contract, valid for up to three years.

TEXAS. In June 1990, the Texas legislature passed a bill requiring that campus-level committees of teachers and parents be established to advise principals on academic and other performance objectives. This provision was strengthened in May 1991, when the legislature passed a bill requiring that each district develop and submit a plan (by September 1, 1992) for implementing school-based management/site-based decision making. These plans must establish School Committees and outline the role of the committees regarding goal setting, curriculum, budgeting, staffing patterns, and school organization. To support this movement towards school-based decision making, the state provided $800,000 in FY 1992 to develop and deliver appropriate training.

At the local level, a number of districts—including **Dade County, Florida**; **Rochester, New York**; and **San Diego, California**—are moving toward district-wide implementation of school-based decision making. A union-management agreement led to the establishment of Dade County's school-based management/shared decision making program in 1986–87. To date,

about half of the district's more than 270 schools have entered the program, which allows them to receive waivers from the union contract as well as from district personnel, curriculum, and budget regulations.

Rochester's 1987 teachers' contract laid the foundation for its school-based planning program, which is now in effect in every school in the district. In Rochester, school-based planning teams (comprising teachers [the majority], administrators, parents, and students [at the secondary level]) develop school improvement plans, have some authority over staff selection, and may apply for waivers from district regulations. San Diego's shared decision making program gives school sites increased flexibility over budget and staffing decisions, though not total control. All San Diego schools are required to have governance teams (with representatives from administration, teachers, other staff, and parents) in place by June 1993. About two-thirds of the schools are already in compliance.

Effectively implementing school-based decision making requires changes at all levels. State and district education agencies must shift their focus from regulation and monitoring to providing resources and technical assistance. As recommended in *Facing the Challenge*, a recently released report by the Twentieth Century Fund Task Force on School Governance, school boards will have to cease micro-managing and focus on establishing broad policy guidelines. Principals and teachers will need to develop the skills and be given the resources to make decisions about how best to provide instruction to their students. Existing staff at all levels will need training and time to take on these new roles.

6. A successful system emphasizes staff development.

Staff quality heavily influences school outcomes. Adequate staff preparation requires at least four elements: (a) high quality pre-service teacher training programs, (b) alternative certification opportunities, (c) in-service teacher training programs based on the most effective instructional practices, and (d) selection, preparation, and upgrading programs for administrators, instructional support staff, and other non-teaching personnel.

While staff development is important for *all* individuals working within the education system, including principals and other administrators, it is *critical* for teachers because they have the most direct impact on students. Pre-service teacher training programs must emphasize mastery of a specific academic discipline or content area, field experience, and effective use of technology, in addition to classroom-based pedagogy. In-service programs must be substantive, and directly related to what teachers are currently doing (or about to do). Once the training is completed, teachers must be helped to integrate the new knowledge into their daily activities.

We must define what accomplished teachers need to know and be able to do if they are to help their students meet the outcome standards discussed earlier. The **National Board for Professional Teaching Standards**, founded in 1987, is setting high and rigorous standards and developing performance assessments for 30 "certificate areas" (defined by children's developmental levels, as well as by traditional subject areas). National Board certification will be a voluntary process, and will not replace state licensing. However, Iowa already has agreed to recognize National Board-certified teachers, and other states may follow suit.

States and districts are notorious for under-investing in staff development. In general, states have not developed comprehensive plans to ensure that all their staff development needs are met, though some have developed innovative programs in limited areas. **California** passed legislation in 1988 creating a three-part staff development system that helps link the state's staff development programs to its subject matter curriculum frameworks. The California system includes funding for (a) school level planning, which ties staff development to school improvement plans, (b) 12 resource agencies and consortia, which link school professionals in each region to staff development programs, and (c) subject matter projects, which are three- to five-week institutes in seven subject areas followed by school- and district-level support.

Nebraska's Tech Center, established in 1985, prepares teachers to use computers and distance learning (in which teachers and students are in different locations). In 1991, the center began working with five colleges throughout the state, helping to improve their pre-service technology teacher instruction. **Vermont** conducts three-day training sessions to prepare teachers to implement its portfolio assessment system. **West Virginia** created a new Center for Professional Development, which provides training for superintendents, principals, and teachers. The center is overseen by a board of directors comprising business leaders and educators, as well as an advisory group of teachers, college faculty, and representatives of the public.

Unless staff development programs are adequately supported, it is impossible for other school reforms to succeed.

Staff development cannot continue to be considered an *expense*. It is a necessary *investment* in systemic school restructuring.

7. A successful system provides high-quality prekindergarten programs, at least for every disadvantaged child.

The evidence is very strong that a *quality, developmentally appropriate* preschool program for disadvantaged children can significantly reduce teen pregnancy, poor school performance, criminal arrest and drop-out rates, student placement in special education, and other negative and/or costly results if these children continue to receive education, health, and social service support through elementary school and beyond.

Federally-funded Head Start programs constitute the bulk of our nation's developmental preschool services to disadvantaged children. However, Head Start serves only about 38 percent of eligible three- and four-year-olds in the nation. Though the federal government has pledged to increase funding for Head Start, states and localities must supplement federally-funded programs if all disadvantaged three- and four-year-olds are to receive the services they need. A few states have made the commitment to do just this, and some have recognized the vital importance of the staff development needed to make these programs successful.

OHIO. In 1991, the governor established a goal of providing services to 50 percent of eligible children through a combination of state and federal Head Start funds by the end of the 1992–93 biennium, and to *all* eligible children by the end of 1995. In support of the governor's initiative, the state legislature increased state funds for Head Start programs by 50 percent for 1991–92, and by another 30 percent for 1992–93, despite cutbacks elsewhere in the budget.

Ohio is also completing a three-year demonstration project, The Head Start—State of Ohio Collaboration Project, to develop a state-wide structure to support the rapid growth of Head Start and enhance the delivery of services that benefit Head Start and other low-income preschool children and their families. The demonstration brought together representatives from a broad range of agencies and service providers to develop a shared vision of collaborative service delivery. When the demonstration is completed, each state department will have developed a coordinated action plan to facilitate collaborative service delivery at the local level.

OREGON. The 1991 *Oregon Educational Act for the 21st Century* makes a strong commitment to pre-kindergarten programs. It requires that funding be available by 1996 to serve 50 percent of children eligible for Head Start, and by 1998, to serve all eligible children. Under this act, Oregon's pre-kindergarten programs would be operated in coordination with federal Head Start programs to avoid duplication of services. The State Department of Education created an early childhood development division, hired a division coordinator to train educators on developmentally appropriate practices, and hired two early childhood education specialists to monitor Oregon's pre-kindergarten programs and to provide appropriate training and technical assistance.

WASHINGTON. Washington's Early Childhood Education and Assistance Program (ECEAP) is a family-focused preschool program to help low-income four-year-old children succeed in the public education system. The program comprises four interactive components: education, parent involvement, health and nutrition, and family support services. A 1985 planning grant allowed a 30-member state-wide advisory committee to develop a blueprint for ECEAP. Since 1986, when the legislature provided a grant of $2.97 million to serve 1,000 children, ECEAP has grown steadily. The 1991 legislative session provided enough funding for ECEAP, in tandem with Head Start and other federal funding, to provide services to all eligible four-year-olds in the state.

Other states have begun to pull together impressive pre-kindergarten programs of more limited scope. **Connecticut** has established three demonstration Family Resource Centers. These centers, located in school buildings, offer parent education and training; family support; infant/toddler, preschool, and school-age child care; positive youth development services; and family day-care provider training. **New Jersey**'s Urban Pre-kindergarten Pilot Program, operating in three cities, provides full school-day programs—including educational, social, health, and nutritional services and parental involvement—to three- and four-year-old children.

At the local level, United Way's **Success By 6**, begun in Minneapolis, Minnesota, is a community-wide effort of business, government, labor, education, and health and human service organizations focused on ensuring that all children have the necessary development by age six for a lifetime of growth

and achievement. Success By 6 provides leadership to focus the community's energy and resources on eliminating barriers that prevent the successful development of young children. The three goals of Success By 6 are to promote public awareness of and build community commitment to the issues, improve access to services and information, and build public-private collaborations to provide an integrated system of services.

Many people consider this component to be a key test of a state's commitment to raising educational quality because research shows that investments at an early age are less expensive and more effective than investments later in children's lives. Though there is near universal support for early childhood education programs across stakeholder groups, the high costs of fully implementing this component have made it difficult for most states to provide quality services for all children who need them. Garnering the necessary support to overcome this hurdle will require persistent effort.

8. A successful system provides health and other social services sufficient to reduce significant barriers to learning.

As can be seen from some of the most impressive early childhood development programs above, raising our expectations for educational performance will not produce the needed improvement unless we also reduce the barriers to learning represented by poor student health, criminal behavior in schools, and inadequate physical facilities. Providing the needed health, social, and other services will require an unprecedented measure of collaboration among agencies, and/or the realignment of governance responsibility for delivering the services.

States are just beginning to develop strategies for coordinating the delivery of health and social services to children, and to offer these services at or near school sites.

CALIFORNIA. The 1991 *Healthy Start Support Services for Children Act* is California's first state-wide effort to place comprehensive support services at or near schools. This governor- led initiative authorized $20 million in 1992 for planning and operational grants to school districts and county education offices to provide school-based, school-linked, integrated health, mental health, social, and other support services for children and their families. In addition to providing services, the local programs must involve parents in planning and operational activities, including teaching family members how to use existing systems, advocate for their children, and meet their own needs.

IOWA. In the 1989 legislative session, Iowa passed a bill authorizing and funding the School-Based Youth Services Program (SBYSP). This initiative allows school districts to compete for grants to coordinate mental health, primary and preventive health care, employment and training, and other services in a location at or near middle and high schools. In the 1990–91 school year, the state was able to provide $200,000 to each of four school districts, which together established 15 centers and served over 3,000 students. The program's first-year evaluation suggested that the SBYSP lowered the dropout rate and improved student performance.

NEW JERSEY. The New Jersey Department of Human Services currently provides $6.5 million per year to fund Comprehensive Youth Service Centers at 29 high schools and seven middle and elementary schools in the state. All of the high school centers provide job training and employment, mental and physical health, and recreation services, and make available a certified alcohol and drug abuse specialist. In addition, some provide day care and nutrition services. The middle school programs mirror those of the high schools, except that they provide career exploration instead of job training and employment services. The elementary school centers concentrate on mental health and health care services, family counseling, after school recreational activities, and academic assistance. Localities participating in the Youth Service Center program must provide a 25 percent match, and some businesses have helped communities meet this requirement. Evaluation of the centers has proven their fundamental hypothesis: "if you put services where the students are, they will use them."

In San Diego, California, **New Beginnings** is working to improve services to children and families through a new system focused on prevention and integrated services. An interagency collaboration between Children's Hospital, the City of San Diego, County of San Diego, San Diego City Schools, San Diego Community College District, San Diego Housing Commission, and the San Diego Medical Center at the University of California, New Beginnings began in 1988 when top agency executives joined together to build awareness of each agency's services in the area. In the fall of 1991, New Beginnings opened its first demonstration center at Hamilton Elementary School, providing family

assessment, parent education and adult education classes, health services, family service advocates, and connections to supportive services from participating agencies. New Beginnings works actively to provide institutional change, including changes in eligibility requirements, confidentiality regulation, and changing staff roles in agencies. A grant from the U.S. Department of Health and Human Services will assist the expansion of New Beginnings within San Diego County.

Through its **New Futures** initiative, the Annie E. Casey Foundation has provided five cities with grants from $5.7 million to $12.9 million to make fundamental improvements in the planning, financing, and delivery of services to at-risk children and their families. Each New Futures city—Bridgeport, Connecticut; Dayton, Ohio; Little Rock, Arkansas; Pittsburgh, Pennsylvania; and Savannah, Georgia—established an Oversight Collaborative of leaders from the public, private, and nonprofit communities. These collaboratives serve as focal points for local decision making about at-risk youth and as mechanisms for improving the coordination of institutions and services.

Providing the necessary health and social services to all students can be a costly endeavor. In this case, however, the services are already funded, though possibly not adequately. What is needed is for the services to be better coordinated and made more accessible to students and their families.

9. A successful system uses technology to raise student and teacher productivity and expand access to learning.

Technology is critical in a program of systemic change, providing the means to: (a) enhance instruction by structuring complicated material, supporting individualized and cooperative learning, and allowing students to simulate "real" situations; (b) provide access to learning through distance learning programs and equipment that compensates for student handicaps; (c) organize information such as student data bases, class and bus scheduling, and other administrative work; and (d) extend the breadth and depth of staff development and productivity.

In general, states have yet to develop comprehensive strategies for using technology effectively, though a few have developed impressive systems using a particular facet of technology.

ARKANSAS. During the 1983 legislative session, Arkansas enacted legislation establishing a nine-member commission to help Arkansas public schools utilize microcomputers to improve basic skills instruction. The IMPAC (Instructional Microcomputer Project for Arkansas Classrooms) Commission, comprising representatives of business, education, and government, established a nonprofit company to facilitate the purchase of microcomputers, to develop software, and to provide maintenance and support at IMPAC project sites. IMPAC's mathematics, reading, and language arts courseware currently is correlated to the Arkansas Basic Skills, but is being adjusted to place greater emphasis on the higher-order thinking skills and problem-solving strategies emphasized in the new learning outcomes established by the state in 1991. To date, IMPAC has involved 269 of Arkansas' 317 school districts, and more are scheduled to participate soon. An evaluation of the program found that over a nine-month school year, students gained an average of two to three months or seven to 13 percentile points on standardized tests above the normal gains without computer assisted instruction. Programs were developed at a cost savings of 41.5 percent over regular discounted commercial prices for schools.

CALIFORNIA. In 1989, the California Department of Education, the California State University system, and IBM joined to create the IBM California Education Partnership (ICEP) to improve public education in the state through the effective integration of technology in the classroom. ICEP created four technology-related programs: (a) joint development projects, in which California State University faculty and K–12 teachers design, develop, field test, and evaluate innovative instructional programs; (b) the staff development program, which installed teacher training labs at all 20 California State University campuses to train future teachers and is installing more than 75 computer classroom labs in selected schools, school districts, and county offices of education to train current teachers; (c) a statewide telecommunications network that helps teachers and superintendents exchange information, share innovative approaches to teaching, and solve administrative problems; and (d) a vocational training program, which has installed mid-range computer systems at 14 locations in California to provide students with instruction in computer skills. The California Department of Education and the California State University system are contributing executive and technical support, use of facilities, and use of an existing high-tech communications network to the effort. IBM has committed $20 million in equipment, software, courseware, and technical support.

SOUTH CAROLINA. Using $18 million in state support and an additional $7 million in federal funding, South Carolina Educational Television (SCE-TV) provides what some consider to be among the best educational broadcasting in the country. In operation for more than 30 years, SCE-TV broadcasts a full schedule of instructional programs aimed at schools, and produces tele-courses for college and university students, teleconferencing and training programs for state agencies, and programs for the Public Broadcasting Service (PBS). Using cable, satellite, locally broadcast signals, and videotapes, its instructional programs reach almost all elementary, middle, and high schools in the state.

TEXAS. In response to a legislative mandate, the Texas State Board of Education adopted the *1988–2000 Long-Range Plan for Technology* in November 1988. The plan provides for hardware and software procurement, training and certification of educators, two telecommunications delivery systems, and research and development. The original plan was developed over many months, with input from representatives of industry, higher education, school districts, and professional organizations, as well as staff from the Texas Education Agency. Since the plan's adoption, the Texas legislature has provided the statutory authority and appropriations necessary to take the initial steps outlined in the plan, though much remains to be done.

On another front, Texas passed legislation in 1987 allowing the State Board of Education to adopt technology-oriented packages (such as computer software or video disks) as textbooks so long as they covered the same material as that required for traditional textbooks. Since that legislation, the first "electronic instructional media system"—an elementary school science "textbook"—was adopted by the State Board in November 1990, and was chosen by approximately 30 percent of the Texas market for use during the 1991–92 school year.

WASHINGTON. More than 90 percent of school districts in the state of Washington (275 out of 296) have voluntarily joined to form the Washington School Information Processing Cooperative (WSIPC), which provides computer support to the participating districts. WSIPC provides administrative software, computer training, a hot-line service, and hardware maintenance. It also facilitates the collection of information for the state. WSIPC is supported by the districts, which pay on a per student basis.

The Kentucky Approach

In June 1989, the Kentucky Supreme Court declared Kentucky's entire school system "unconstitutional," and the state was faced with the daunting task of creating a new education system from whole cloth. The state's legislature and governor appointed a 22-member task force to draft a reform package, and on April 11, 1990, the governor signed into law legislation authorizing the new system.

That comprehensive legislative reform package, which also included massive governance and finance changes, set Kentucky well on the path to creating an education system based on *all* nine essential components. However, much work still needs to be done before it is completely implemented.

1. OPERATING ASSUMPTIONS. The *Kentucky Education Reform Act of 1990* (KERA) states, "It is the intent of the General Assembly that schools succeed with all students." The act (a) mandated the implementation of multi-age, multi-ability primary programs to provide a sound educational foundation for all children before they enter the fourth grade; (b) directed schools to provide additional instructional opportunities for those students who need more time to achieve the state-established learning outcomes; and (c) created an equitable funding formula for schools in the state.

All elementary schools are required to start implementing the new primary program by September 1992, and to have it completely in place by September 1993. Last year, the state spent $31 million to involve 155,000 students in an Extended School Services Program, which includes before-school, after-school, weekend, and summer

programming, as well as better use of students' time during the school day. This year, the program's appropriation is over $50 million.

2. OUTCOME-BASED SYSTEM. KERA established six learning goals describing what all students are expected to be able to do with the knowledge and skills they acquire: (a) apply basic communication and math skills in situations similar to what they will experience in life; (b) apply core concepts and principles from science, mathematics, social studies, arts and humanities, practical living studies, and vocational studies; (c) demonstrate self sufficiency; (d) demonstrate responsible group membership; (e) apply thinking and problem solving; and (f) integrate knowledge.

The state's Council on School Performance Standards convened 11 state-wide committees of teachers, administrators, and other educators to frame these six goals in measurable terms. In December 1991, the State Board for Elementary and Secondary Education approved 75 council-developed "valued outcomes," or measures of Kentucky's six learning goals. In addition to the six student learning goals, schools are to be held accountable for graduation rates, retention rates, attendance, students' post graduation success, and students' health.

3. STRONG AND RICH ASSESSMENT STRATEGIES. As the new system is to be outcome based, KERA requires the development and implementation of a sophisticated program for assessing student learning. The state plans to test all students in grades four, eight, and 12 every year. The assessments will include "paper and pencil" tests (multiple choice, open-ended, and writing tasks), performance events, and portfolios—all tied to the valued outcomes. The first assessments were held in the spring of 1992. The assessment program will cost an estimated $28.5 million over the five-year implementation period.

4. REWARDS, ASSISTANCE, AND PENALTIES. KERA establishes a system of rewards, assistance, and penalties for schools based on their success at helping students achieve the specified outcome standards. The principles of the system include: (a) the school as the unit of accountability; (b) a two-year measurement period; and (c) accountability based on changes in the proportion of successful students at a school.

Staff of schools that increase their percentage of successful students by defined amounts will receive financial compensation. Schools experiencing minor failures will be required to develop an improvement plan, will receive on-site assistance from Kentucky Distinguished Educators, and may receive school improvement grants. At schools where the proportion of successful students decreases by five percent or more, parents will have the right to transfer their children to successful schools, and staff will be placed on probation and possibly dismissed or transferred to other positions. The 1992 assessment scores will serve as the baseline for this process, and the first use of rewards, assistance, and penalties will follow the spring 1994 assessments.

5. SCHOOL-BASED DECISION MAKING. KERA requires that a system of school-based decision making be implemented and phased in, with all schools operating under the system by the start of the 1996 school year. Each school is to create a School-Based Decision Making Council, generally consisting of the principal or head teacher, three teachers, and two parents.

Councils are to be responsible for some budget items, staffing decisions, curriculum design, technology use, student class and program assignments, school schedules, the use of school space, instructional practices, discipline policy, classroom management techniques, and extracurricular programs. Additionally, they are to receive a proportionate share of the district's school appropriation for instructional materials and school-based student support services. As of December 1991, over 25 percent of the schools had formed councils. The Kentucky Department of Education has created a Division of School-Based Decision Making, which provides direct technical assistance to the councils.

6. STAFF DEVELOPMENT. KERA instituted reforms in pre-service teacher training, including the creation of a teacher-majority Education Professional Standards Board. The act created a system of alternative certification which provides instruction and supervision to non-teaching professionals and allows them to teach in classrooms prior to obtaining their teaching certificates. Five Regional Training Centers were established to provide peer-to-peer counseling, consultation, technical assistance, and materials to personnel operating pre-school programs. Eight Regional Service Centers were established to provide professional development support and technical assistance to teachers and administrators.

Administrator training was upgraded through the establishment of a Principals Assessment Center and a Superintendents Training Program and Assessment Center. Ongoing staff development was to be funded by the state, with allocations to school districts based on student enrollment. The act called for $1 per student the first year,

$5 the second year, and $16 the third and fourth years. The state currently is developing four teacher training modules (one for each level of school), each of which addresses all areas of the reform in a comprehensive fashion. This summer, 40 trainers will be trained to deliver the modules.

7. HIGH QUALITY PRE-KINDERGARTEN PROGRAM. KERA required every school district to provide a developmentally appropriate half-day preschool education for all four-year-old children at risk of educational failure. Furthermore, the governor was required to appoint a Kentucky Early Childhood Education Advisory Council to advise the chief state school officer on the implementation of early childhood education programs in the state. Currently, all school systems are providing preschool programs for at-risk children. More than 75 percent of income-eligible children received services during the 1991–92 school year.

8. INTEGRATED HEALTH AND SOCIAL SERVICES. KERA established an ambitious plan to create, over a five-year period, a network of Family Resource Centers and Youth Services Centers at or near schools in which 20 percent or more of the student body are eligible for free school meals. The elementary school-based Family Resource Centers are to promote identification and coordination of existing resources available to eligible families, such as preschool child care, child care for school-age children, family support, child development, and health services. Middle and high school-based Youth Services Centers are to focus on coordination of existing services available to adolescents, such as health and social services, employment counseling and placement, drug and alcohol abuse counseling, and family crisis and mental health counseling. During the 1992–93 school year, the state will operate 206 Family Resource and Youth Services Centers, providing services to 393 schools, at a cost of $15 million.

9. TECHNOLOGY. KERA required the governor to appoint an advisory Council for Education Technology to develop and oversee the implementation of a five-year technology plan. The legislature has pledged to provide a total of $200 million to support it. The council's executive director set up a multi-agency steering committee—comprising representatives from the council, the education department, the legislature, and the state board of education—to help reach consensus on the technology program's objectives. He then asked three major systems-design firms to develop competitive, detailed plans for implementing education technology in the state, based on those objectives. Implementation of the winning plan will allow flexibility at the district and school level, and will require the state to provide substantial amounts of technical assistance.

Kentucky's ambitious reform is costing the state's taxpayers an average of $300 million per year in additional money for education. Successful implementation of the reform effort will require the continued commitment of time and resources. The Business Roundtable-sponsored **Partnership for Kentucky School Reform**, a nonpartisan coalition of more than 50 public and private leaders representing Kentucky's business, civic, government, and education constituencies, has made a 10-year commitment to support Kentucky's implementation efforts. The Partnership has launched a $1.5 million public relations campaign to sustain both substantive and financial support for KERA. This campaign includes sponsorship of a major newspaper, radio, and television media effort, and the "KERA Bus," a retrofitted yellow school bus that serves as a traveling road show.

The Partnership also has established a Business Employee Initiative designed to involve the business community with the public schools. Through this effort, businesses inform their employees about education, and encourage them to become involved in the schools and supply technical assistance to the schools to help them make changes required by the act. The Partnership supplies technical support and assistance to businesses as they implement their Business Employee Initiatives.

State-Level Strategies for Achieving the Nine Essential Components

Developing a vision of what an education system based on the essential components might look like is only part of the solution. Companies must work with policy makers, educators, and other education stakeholders to agree on an agenda, and develop and implement a plan for making the needed changes. Adopting this vision unilaterally may sound good, but true ownership by key stakeholders is critical.

There is no clear path to success. Every state is unique, and companies will have to chart their own courses in each. Making changes in one state will require a different strategy from what is required in another. States will be at different points in the educational change process as companies become involved, and this too will affect the activities required.

Systemic change is not a linear process, and there is no clear step-by-step procedure to follow. Many activities will be simultaneous. Others will have to be repeated, with a redoubling of the initial efforts.

The Business Roundtable recognized that achieving state-level systemic change would require a long-term effort, and it pledged 10 years to the endeavor. Individual Roundtable companies engaged in the process need to remember that time frame, and recognize that the changes they are trying to effect will happen neither quickly nor easily.

To be successful at restructuring education in their states, companies must involve themselves in a wide array of activities. The following sections are designed to help companies understand what that involvement might entail. For more information on the educational change process, they can consult two National Alliance of Business publications: *A Blueprint for Business on Restructuring Education*, and *Business Strategies that Work: A Planning Guide for Education Restructuring.*

The Other Nine Points—Moving an Outside Change Strategy Inside the System

1. The Business Roundtable Nine Points are your product; in order to "sell" them, business must take the time to understand the marketplace.
   - The marketplace is both competitive and messy.
   - Expect political stakeholders to add finance and governance to the mix.
2. Business can't improve education; however, it can and should define business needs, cast issues in new ways, and support educators and political figures who can make improvements.
   - Seek out a local guru to help define your agenda and political insiders to champion it.
3. Remember who needs to be involved in the change effort.
   - Governors can introduce reform, but legislatures enact/fund it and educators make it work.
4. Cultural and process barriers are as critical as substantive ones.
   - Assume, particularly at the outset, that some key players will be suspicious—of you and of each other.
   - Therefore, your initial priority should be to establish trust among your partners.
5. The Nine Points are aimed at moving targets (the states).
   - Merge your agenda with what people care about and what's working—somebody owns it.
   - However, enable new stakeholders to add their imprint so they don't derail long-term change efforts.
6. Be strategic about your role.
   - Business is best at advocating and supporting change.
   - Business need not develop the game plan; political stakeholders, once convinced of the need and their ability to act, can craft the winning strategies.
7. Business should try to speak with one voice on education issues.
   - Your lobbyists can help forge unity by making the political environment user friendly—involve them.
8. Political—and business—time clocks run faster than education reform time clocks.
   - Therefore, communicate to everyone what you're doing—it buys needed time for implementation.
   - Use short-term success stories to bolster long-term improvement efforts.
9. People in irrational systems tend to act rationally for rational reasons but with irrational results.
   - Together, adults can restore rationality to education by creating a system that serves kids.
   - And we can help the education system remain rational by building internal capacity to make continuous improvements.

Source: Peggy M. Siegel, Vice President, Business-Education Projects, National Alliance of Business.

Develop Internal Awareness and Knowledge

An awareness and understanding of the education crisis, and knowledge about how to address it, are critical for companies becoming engaged in and contributing effectively to the change process. Individuals throughout the company, including not only the chief executive officer (CEO) and the CEO's education initiative designee but other corporate executives and rank and file employees, must understand the issues. While the first two will have primary responsibility for carrying out the education initiative, the others must support and sustain it.

Focusing early awareness-building efforts on the relationship between education and workforce quality may be the best way to capture the interest of a company and its employees. While company executives will be concerned about the impact of education and workforce quality on productivity and competitiveness, all employees will be concerned about how these factors affect jobs. An awareness campaign aimed at making employees realize that today's education system is not "making the grade"—not just in *other* school districts, but in *their own*—may be crucial to building necessary support for the initiative.

Companies and their employees must do more than just develop an awareness and understanding of these issues; they must develop a base of knowledge from which they can work for change. They need to understand how education systems currently operate, what problems exist with the current systems, what experts suggest to improve the systems,

and how they might help to bring about needed changes. They not only must understand The Business Roundtable's nine Essential Components of a Successful Education System, but also the six National Education Goals, national education reform proposals (including the President's America 2000), and the education reform proposals in their own states.

Activities to build this deeper knowledge may include:

- Reading publications;
- Attending conferences and seminars;
- Visiting schools and talking with teachers, students, and parents;
- Attending state and local school board meetings; and
- Developing and implementing a corporate education awareness campaign.

Building awareness and knowledge is a continual process, not unlike the staff development initiatives described previously. It is not something that businesses do once, but a process that must extend throughout companies' participation in the education reform enterprise.

Join or Form a Coalition

Companies must join in strategic coalitions to rally necessary support for change. This does not necessarily mean creating new coalitions. There may be existing coalitions with compatible memberships and agendas that they could join.

Initially, companies may want to join other businesses and/or business organizations in a business-only coalition. Such a coalition would provide them with the opportunity to "get up to speed" on education issues and develop their own vision of the changes required in the education system. Policy makers and educators—with whom they will eventually have to work—already will be steeped in knowledge of the education system. This initial period apart would give the business community the preparation time it needs to understand the education environment before it joins forces with the others. That way, it will be able to participate on an equal footing.

Connecticut Commission on Educational Excellence

In June 1992, Connecticut passed legislation formally establishing a Commission on Educational Excellence with responsibility for evaluating the state's current education system and recommending a strategy for creating an "outcome-based, world-class education system." The Connecticut Business for Education Coalition (CBEC), composed solely of members of the business community, joined with other education stakeholders to lobby for this legislation. By law, the commission must include the following individuals (or their designees): the lieutenant governor, the secretary of the Office of Policy and Management, the commissioner of education, the commissioner of higher education, the executive director of the Commission on Children, members of the state's General Assembly, and representatives of the state's associations of school boards, schools, superintendents, school administrators, principals, teachers, parents, and business, including 11 members of CBEC.

Eventually, companies will have to participate in a more broadly-based coalition that encompasses *all* education stakeholders. They include the governor, key state legislators, the chief state school officer, and representatives of the state school board, teachers, local school boards, local administrators, parents, students, and *members* of state stakeholder organizations.

Business people need to understand the politics of systemic change—who is involved, who makes decisions, and how those decisions are made—so that they include broad-based interests in the coalition from the outset. Education stakeholders have different viewpoints and take different positions on education issues. All these differences must be understood and taken into account.

"Coalition composition" is crucial. Stakeholders who are not involved will not feel ownership of any agenda the coalition develops, and may later lead the opposition. Conversely, a broad-based membership can serve as a defense against opposition; as all members will have a stake in and thus support the agenda, there will be little room for a "divide and conquer" attack. A coalition's membership cannot be static. Maintaining leadership during periods of transition is critical. Companies should continually assess the coalition's composition, and advocate the addition of new members whenever warranted.

Participating in a broad-based coalition enables business to shed its "outsider" status. Business can demonstrate a commitment both to education and to the best interests of children. An agenda put forward by such a coalition

has more legitimacy than one put forward solely by business. It is more likely to be perceived as based on sound educational theory, and less likely to be perceived as designed only to meet the needs of the business community. Even more important, unless many other stakeholders are brought in and buy in, policy changes have no chance of success.

Develop Relationships with the Key Stakeholders

Companies working on state-level education initiatives must form close alliances with the key stakeholders in a state: the governor, the key legislative leaders, the chief state school officer, members of the state school board, and the leaders of the state's teacher, local school board, local administrator, and parent associations.

While it is important that CEOs develop a good relationship with the governor, they must understand that the governor does not control the educational change process in the state. Some business people who have spent time working on state-level education change suggest that legislative leaders and chief state school officers are equally important allies. Both tend to have more continuity than do governors. And it is the legislators who enact, fund, and oversee implementation of state education policies.

Business leaders need to meet with the key stakeholders to explain why the business community wants to become involved in educational change and what it hopes to accomplish. They should make clear that they have a comprehensive agenda for change, introduce the nine essential components, and explain how the components might be applied in the state.

At the same time, these business leaders should learn about the key stakeholders' educational agendas: their goals, the reform activities they have already pursued, and their current initiatives. Business leaders need to be open to these agendas, and develop relationships of mutual trust and support.

Companies need to be flexible during their exploratory meetings with other stakeholders. They should not push the nine components as a rigid agenda, but should accommodate others' interests and concerns. They must look for ways to address issues the other stakeholders feel are important. They must also look for ways to adapt the components to existing educational practices and initiatives.

While the nine essential components are based on the ideas of leading educators, they may be viewed skeptically as a "business agenda" when Roundtable companies first introduce them. As long as they are viewed that way, they are destined to fail. Companies must exercise a great deal of political savvy to build trust and develop allies in support of the components. Perhaps the companies can introduce the components at a broad-based coalition meeting and work with all stakeholders in that open forum. A more likely scenario would be for companies to develop individual allies among stakeholders first, then introduce the components before a larger group.

Finding allies may require one-on-one meetings, or small group meetings. Politically attuned education experts in the states can help companies develop a strategy for finding allies. These experts can provide insights into who the key players are, who to talk with first, and how to approach particular people and groups. Identifying the experts is difficult. Possible sources include university professors who have consulted on education initiatives in the past, current and past staff of education legislators, and business people who have been engaged in education reform.

To help Roundtable CEOs develop relationships with the key stakeholders, The Business Roundtable sponsors "Stakeholder Dialogues," to bring the key parties together at one-and-a-half-day education retreats. The Business Roundtable targets these dialogues on single states or regions, enabling participants to focus their discussions on their own particular educational problems and potential solutions.

Companies need to work with stakeholders on a continuing basis; CEOs, working together, should try to maintain reasonably frequent contact with the governor, key state legislators, and the chief state school officer on education issues. This process of building and maintaining relationships with the key stakeholders is critical to developing a comprehensive reform agenda.

Establish a Comprehensive Agenda that Includes the Essential Components

Effecting change requires a vision of that change. For Roundtable companies, that vision is the nine Essential Components of a Successful Education System. But that vision needs to be modified and adapted to meet the circumstances in each particular state.

A "gap analysis" can be a useful process for building a consensus agenda. Such an analysis provides a comparison between the nine essential components and a state's education laws, regulations, and practices, as well as state-specific recommendations on how the "gaps" could be closed and a comprehensive, integrated system put into place. It involves interviewing a broad range of stakeholders, reviewing existing statutes, policies, and activities, and preparing a written report.

A gap analysis can be conducted at almost any time during a company's involvement in the educational change process. Early on, a gap analysis can build companies' knowledge about the state's current education system and the kinds of changes that need to be made. A business coalition can also use it to educate members and to develop an agenda for change.

The analysis may be used during meetings with the governor and other key political and education leaders to help explain the business agenda. It can be used as well during the consensus-building process—in one-on-one and small-group meetings—to lay out the business perspective on changes that should be made in the education system. In fact, the *process* of developing the gap analysis should serve as the beginning of consensus-building. Interviews with stakeholders for development of the document can be a forum for explaining the nine essential components and learning the stakeholders' opinions and concerns.

A gap analysis is almost required for development of a comprehensive agenda including the essential components. The gap analysis provides the basis for that agenda, documenting a state's current education system and recommending ways to incorporate the nine components into it.

A gap analysis used throughout the educational change process will become a "living" document. As different individuals are approached and alliances developed, other viewpoints and concerns should be incorporated into the document. Once alliances are forged and a consensus is reached, the broad-based coalition can publish the final gap analysis as its comprehensive agenda for educational change in the state.

Ohio's Educational Agenda

There are many strategies for attempting to build alliances or broader ownership of the nine essential components. In Ohio, The Business Roundtable agenda was merged with Governor Voinovich's emphasis on the six National Education Goals. A state-wide summit of Ohio's political, education, and business leaders forged a consensus over the need to build a performance-driven education system. The gap analysis then became one of five critical pieces of a comprehensive legislative/administrative reform package for 1993.

Develop a Strategic Plan

An agenda for educational change is just a vision. It will take a great deal of effort to turn that vision into a reality. Roundtable companies will need to work within their broad-based coalitions and with their stakeholder allies to develop strategic plans for implementing their agendas. Components of these plans are likely to include:

- An outline of needed legislative, regulatory, and policy changes;
- Identification of funding requirements and sources;
- Political strategies;
- A public awareness campaign; and
- A structure to orchestrate action.

The agenda shaped by the gap analysis specifies end results, not how to achieve them. Working with their allies, Roundtable companies should determine which results will require legislative changes, which regulatory, and which policy. From this analysis, the coalition can outline the comprehensive, integrated legislative, regulatory, and policy changes that it wants implemented, along with a timetable for phasing them in.

Once the changes are identified, the coalition can begin to determine whatever additional money may be required to carry out its agenda. Identifying sources for that money will be very difficult. Both transferring existing funds from lower-priority state and local activities *and* raising new money through new taxes are likely to be politically sensitive.

If all the key political and bureaucratic stakeholders are part of the consensus, it should be easier to develop a political strategy for implementing changes. More likely, there still will be a number of individuals and organizations to lobby. Additionally, some changes may require building grassroots support, either because the changes require voter approval or because politicians need assurance that the public will approve. Companies will need to prepare their corporate lobbyists—who know the legislative process and the players, but not the education issues—

Public Awareness Campaigns

The following key factors for running a successful public awareness campaign are lessons learned and shared by the Connecticut Business for Education Coalition's Public Awareness Committee, led by Edward H. Budd, Chairman and CEO of The Travelers:

- ***Action Agenda.*** **Create messages that are simple, personal, and enlist a call for action from the target audience.**
- ***Continuous Improvement.*** **Continuously measure campaign effectiveness through pre- and post-tests to gauge outcomes, and use results for improved future communications.**
- ***Long-Term Strategic Commitment.*** **Increase the probability of success by planning around milestones, increasing the length and intensity of the campaign, and including the campaign as part of a long-term coalition communications strategy.**
- ***Resource Allocation.*** **Solicit and commit adequate resources, and allow at least six months for campaign development and execution.**
- ***Coalition Common Ground.*** **Seek existing or build new business/stakeholder coalitions with common goals or similar existing and/or planned campaigns to help develop, support, and distribute campaign messages and materials to employees, members, and the general public.**
- ***Internal Communication.*** **Use company internal communications vehicles (e.g., CEO letter, video tapes, newsletters, etc.) as cost effective methods of raising employee awareness.**

to help plan and implement the political strategies.

Frequently ignored until late in the game, a public awareness campaign is critical to success of any educational change strategy. Less than 20 percent of households have school-age children, and according to a 1991 Gallup survey, 73 percent of parents with children in public schools believe that their children's schools deserve an "A" or "B" grade. Clearly, if education reform is to get the support it needs to succeed, more adults must recognize the extent of the problem and the compelling need for change. The sooner a public awareness campaign is developed and implemented, the sooner the coalition will be able to develop essential constituent support.

The Business Roundtable has recognized the importance of a public awareness campaign, and joined with the National Alliance of Business and other organizations to form the Education Excellence Partnership—sponsor of a five-year Advertising Council media campaign (see box on page 25 for more details).

Finally, the best strategies in the world will fall flat without a structure for orchestrating action. The coalition may establish committees, with chairs responsible for implementation of various parts of the strategic plan. Or it might use staff from member organizations, or hire new staff specifically for this endeavor. One way or the other, it must clearly fix responsibility for implementation. Furthermore, those with the responsibility must have the time to carry out their assignments and "rally the troops" as circumstances require.

This strategic planning process greatly simplifies the process in which companies will have to engage. While it is important to have a strategy for the entire educational agenda, it is quite likely that companies will have to push different parts of their agendas at different times. They will have to rethink strategies that meet with failure, and be alert for unexpected opportunities to make progress.

Implement the Plan

Execution

Roundtable companies and their allies will have to work long and hard for enactment of the legislative, regulatory, policy, and funding changes identified in the strategic plan. Implementation of the public awareness campaign will likely be a major component of efforts to get their agenda enacted.

The companies' work will continue after enactment to help put the new policies into practice. Additional legislation or policies, as well as new appropriations, may well be required. Business representatives may need to serve on councils, boards, and commissions associated with the new reforms. Without the support of the business community, the changes may not be fully implemented.

Roundtable companies can provide direct assistance to state departments of education, as well as to individual school districts and schools, to help them adopt new practices. Companies that have begun to decentralize their own decision making can work at the state, district, and school levels to help

bring about successful school-based decision making. This could include helping to determine which decisions are best made at which levels and to identify and develop appropriate staff training.

Companies can share their planning and management expertise. Some companies already have begun to work with school districts to help them adopt "quality management" practices. Many companies' internal management training programs can be adapted for state education officials, district superintendents, and principals. Companies with extensive staff development programs can help states and districts develop their own.

Monitoring and Assessment

As perfectly planned and executed as a state's education reform effort might be, it probably will still need refinement. Continuous monitoring and assessment can determine whether modifications are needed.

Companies should ensure that a system will exist to evaluate the implementation process, and the impact of the reforms on education structures and processes, student outcomes, and workforce quality.

Assessment of student outcomes and workforce quality should be delayed until the reforms have presumably had time to take effect.

Monitoring and assessment efforts will help the state stakeholders develop the capacity to maintain "continuous improvement," even with changes in leadership.

Sustaining Commitment

Effecting state-level education change requires a long-term commitment from everyone. The Business Roundtable companies must work with their stakeholder partners to maintain support for policy changes and funding. This involves sustaining momentum over time *and* engaging new leaders as warranted.

Public support for education reform is critical to sustaining commitment. The public awareness campaign highlighted earlier must be a longterm activity.

Roundtable companies and their broad-based coalitions must continue to cultivate both the leaders and the grassroots constituents of member organizations.

Companies should maintain their internal education awareness campaigns, publishing articles on education in company newsletters and distributing posters throughout offices and plants. Making education issues more "real" to employees can help keep companies engaged. Local school partnerships, while not likely to improve student outcomes radically, can build company support for broader policy efforts.

Maintaining Momentum

South Carolina's reform movement maintains its momentum through several mechanisms established for that purpose in state law. The membership of the Business-Education Partnership for Excellence in Education, a blue-ribbon committee created by the *Target 2000 Act of 1989* and convened by Governor Carroll Campbell this year, provides a direct link to the legislature on education reform issues; its Business Education Subcommittee (originally created in the *Education Improvement Act of 1984*) continues to play an important monitoring role. The result for South Carolina has been a commitment to education that spans nine years and has continued under two administrations.

Monitoring Progress

The Prichard Committee for Academic Excellence, an 11-year-old education advocacy organization in Kentucky, has instituted a three-pronged effort to monitor implementation of Kentucky's education reform effort.

- **Prichard Committee staff attend the meetings of education groups in the state responsible for making policy or implementing the state's school reform to ensure that the reform stays on track.**
- **The committee is organizing Community Committees for Education in the state's school districts that will serve as supportive networking groups encouraging and facilitating, as well as monitoring, implementation of the reforms.**
- **The committee has hired out-of-state consultants to monitor the implementation process of the state's reform effort.**

"Lessons Learned"

Two and one-half years into its education initiative, The Business Roundtable has outlined some of the "lessons learned" from the experience:

1. BUSINESS MUST DEVELOP A NEW MODEL FOR INVOLVEMENT WITH THE EDUCATION SYSTEM. Business has always been involved with education. However, many of the early contacts could be defined as "feel good"—donating band uniforms, guest lecturing in classrooms, opening local plants and offices for student field trips.... These efforts have helped build businesses' understanding of education and its needs, and trust between educators and business leaders. But in and of themselves, they will seldom lead to improved student outcomes.

For our education system to be changed so that all children learn at world-class levels, business involvement must be *long term*, *systemic*, and *political*. Business cannot walk in and flirt with an education system for a year or two, walk out, and expect the system to be transformed. It cannot develop "add-on" programs that do not affect the entire system of education and expect all students to benefit. Finally, it cannot limit its involvement to public relations programs. It must be willing to get "down and dirty" and take the risks associated with working for needed changes within the political system.

2. BUSINESS MUST EDUCATE ITSELF ABOUT EDUCATION BEFORE IT APPROACHES OTHER STAKEHOLDERS if it hopes to have an impact on the education system. Business must have its own vision of what changes should be made, and ideas for how it might help bring about those changes.

If business approaches other education stakeholders before doing its homework, it may not be taken seriously. It also runs the risk of setting its sights too low by supporting marginal changes rather than those essential to restructuring the education system and improving student outcomes.

3. IT IS EASIER TO DEFINE A VISION THAN TO DEVELOP A STRATEGY AND IMPLEMENT IT. The nine essential components are The Business Roundtable's vision of what a restructured education system should look like. There still remains the difficult task of developing strategies to implement this vision in every state in the country.

The nine essential components must be modified and adapted to meet the circumstances in each particular state. Furthermore, plans must be developed to translate the state-specific visions into legislative, regulatory, and policy changes. The vision encompassed by the nine essential components is only a beginning to the long, arduous, and non-linear process of effecting change.

4. STICK TO THE AGENDA. The desire to accomplish something can be overwhelming. While it may be necessary to compromise the agenda to encompass the concerns and ideas of other major stakeholders, the final product must maintain the integrity of the nine essential components.

Different stakeholders will like and dislike different components. But while they may not be able to endorse each of the components separately, they might be able to accept all nine as a package. Because Roundtable companies may not be able to maintain consensus once the more "popular" components are implemented, they should resist the temptation to promote the components one at a time. A comprehensive plan to implement *all* components should be developed up front, though implementation of each may be phased in over time.

The precise terminology of the nine components is not as important as the content. Companies should work The

Internal Education Initiative

Merck & Co., Inc. has embarked on a major internal education initiative—Merck Employees for Excellence in Education, or E^3—to build employee understanding and involvement in education. E^3 efforts include:

- **Promoting parental involvement in the education process;**
- **Fostering greater interest in, and knowledge of, science throughout the community;**
- **Providing information and guidance to pre-college students, their teachers, and their parents;**
- **Providing tours of the Merck laboratory, engineering, and production areas;**
- **Providing science tutoring and mentoring to students and teachers;**
- **Developing a resource center/clearinghouse of education information; and**
- **Producing science and engineering demonstrations for presentation to students.**

Business Roundtable agenda into existing change efforts that reflect the same concerns, even if language or order varies.

5. LOOK INTERNALLY, BEFORE TRYING TO EFFECT CHANGE EXTERNALLY. Corporations' own internal policies have an effect on education, and corporations must be willing to evaluate and change those policies if they are to have credibility with policy makers and education leaders.

Corporations should make sure that they are not negotiating for reductions in their state and local taxes that run counter to state and local schools' education needs. Their corporate contributions policies should focus on the K–12 education system and not solely on higher education. The education programs they fund should encourage systemic change. Additionally, while corporations are advocating appropriate training of education professionals, their own internal training policies must meet the standards they support for others.

Companies also need to look into their own work organization. According to the Commission on the Skills of the American Workforce's report *America's Choice, high skills or low wages!*, only five percent of American companies use new, high-performance forms of work organization requiring front-line workers to assume more responsibility and reducing layers of management. Only if American employers organize work in this new way will there be a significant market for better-educated workers with higher-order skills. Corporations should also put pressure on students to succeed; they should hire only high school graduates and should ask all job candidates for their transcripts.

Because the education initiative's success depends on support throughout each corporation, corporations need to educate all their employees about the education crisis, and encourage their employees to become involved with local schools. Corporations can operate their own mentoring and tutoring programs. Additionally, where employees are parents of school-age children, companies can provide parenting education and adopt personnel policies that make it easier for parents to support their children's education.

The Roundtable's new publication *Agents of Change* describes exemplary internal corporate polices and practices to improve education. (Copies are available by contacting The Business Roundtable.)

"Keep the Promise" Campaign

In November of 1992, The Business Roundtable, in conjunction with the Advertising Council and in partnership with the National Alliance of Business, the American Federation of Teachers, the National Governors' Association, and the U.S. Department of Education, launched a five-year national advertising campaign aimed at building public support for school reform. This media campaign, Keep the Promise, reinforces the concept that *all* schools can and must improve, and that bringing about this improvement is the collective responsibility of *all* our citizens and *all* sectors of our society.

6. BUILD PUBLIC SUPPORT FOR CHANGE. Political and education leaders can only pursue this innovative policy agenda with broad public support. We must gain consensus on the essential components at local, state, and national levels if we are to significantly improve student outcomes. Business coalitions in several states, including Kentucky and West Virginia, have launched public awareness campaigns to help build public support.

The Business Roundtable's education initiative is still in the formative stages. As Roundtable companies continue their state-level efforts, their knowledge of what does and does not work will grow, and they will be able to share additional insights into the best ways to effect sound educational change.

Appendices

Essential Components of a Successful Education System

Executive Summary

America's ability to compete, our democratic system, and the future of our children depend upon all our children being educationally successful.

The Business Roundtable, representing some 200 corporations, supports the national education goals endorsed by the nation's Governors. The achievement of those goals is vital to the nation's well-being.

These are the essential components, or characteristics, that the Roundtable believes are needed to provoke the degree of systemic change that will achieve the national goals through successful schools:

1. A successful education system operates on four assumptions:
   - Every student can learn at significantly higher levels;
   - Every student can be taught successfully;
   - High expectations for every student are reflected in curriculum content, though instructional strategies may vary; and
   - Every student and every preschool child needs an advocate—preferably a parent.
2. A successful system is performance or outcome based.
3. A successful system uses assessment strategies as strong and rich as the outcomes.
4. A successful system rewards schools for success, helps schools in trouble, and penalizes schools for persistent or dramatic failure.
5. A successful system gives school-based staff a major role in instructional decisions.
6. A successful system emphasizes staff development.
7. A successful system provides high-quality prekindergarten programs, at least for every disadvantaged child.
8. A successful system provides health and other social services sufficient to reduce significant barriers to learning.
9. A successful system uses technology to raise student and teacher productivity and expand access to learning.

The Business Roundtable Education Public Policy Agenda

America's ability to compete, our democratic system, and the future of our children depend upon all our children being educationally successful.

In the fall of 1989, The Business Roundtable accepted President Bush's challenge to help produce systemic change in the way teaching and learning are practiced in the nation's elementary and secondary schools. Chief executive officers of Roundtable member companies have made a 10-year commitment of personal time and company resources to this effort. We have been learning more about the issues, generating additional and deeper commitment on many fronts, and working with the President, the Governors, and other interested parties in the formulation of the announced national education goals.

We support the goals. Their achievement is vital to the nation's well-being. Now it is time to begin implementation, state-by-state, recognizing that no single improvement will bring about the systemic change that is needed. The effort requires a comprehensive approach that uses the knowledge and resources of broadly based partnerships in each state.

The next step is to agree on action plans for a public policy agenda that defines the characteristics of a successful school system. This paper identifies those essential system components, which we see as the requirements for provoking the degree of change necessary for achieving the national goals through successful schools.

Individual Roundtable CEOs and Governors have teamed up to institute these components in state policy. The action plan in each state will be measured against how the plan contributes to or detracts from these essential components. The nine components should be considered as a comprehensive and integrated whole. Their implementation should be strategically phased in. But if any one is left unattended, the chances of overall success will be sharply reduced.

If, however, every state aggressively creates a school system embodying all nine components, this nation will raise a generation prepared to reestablish leadership in the international market place and reaffirm the strength of our democracy.

There are nine essential components:

I. A SUCCESSFUL EDUCATION SYSTEM OPERATES ON FOUR ASSUMPTIONS:

A. Every student can learn at significantly higher levels. We must share this belief if we hope to achieve much higher levels of performance from *all* students, including those with whom we have historically failed. We must seek to bring out the very best, not just the lowest common denominator of performance. Without this assumption, we are destined for continued failure as our expectations become self-fulfilling prophecies.

If we expect a certain number of students to fail or perform poorly, we will identify the first student who has difficulty as one of those who can never learn when measured against demanding criteria. That student will be literally or figuratively abandoned, and will be joined by more and more failed children. Soon we will have failed as many as we have today.

B. Every student can be taught successfully. Many teachers and schools across the United States are successfully serving children who are rich and poor; children of every color; the disabled and those who are not; those who have been raised to speak English and those who have not. What works is a matter of knowledge, not opinion. The challenge is not to invent new ways, but to identify the successful practices and then train all school staff in the knowledge and skills to apply them.

In affirming we know what works, we do not suggest we know all we need and want to know. We should continue to push the frontiers of knowledge about teaching and learning. The point is that we know far more than we practice about how to teach significantly more students at a much higher level. The schools' product must reflect that fact.

C. High expectations for every student are reflected in curriculum content, though instructional strategies may vary. What children learn should be commonly challenging. We must focus them on thinking, problem solving, and integration of knowledge. We should provide a rigorous curriculum for all, not a narrow, watered-down curriculum for some.

We should also recognize that how we teach, where and when teaching and learning occur, and who teaches, should be different for different students, classrooms and schools. The differences should be governed by what works in having each child succeed at significantly higher levels. When we fail with a single child or a class or school, we must recognize we do not yet have the proper mix of how, where, when, and who.

D. Every student and every preschool child needs an advocate—preferably a parent. No one succeeds, or maintains success, without help. Children need to be read to and talked to, nurtured and cared for; and guided to a healthy lifestyle. All children need security. Attaining school objectives requires support beyond the schoolhouse. Each

child must know that education is valued by one or more persons whose opinion the child values.

Parents are the best source of such help. Renewed and urgent attention to strengthening the family is important because a strong family will increase school success significantly. Where parental support does not exist, an advocate for the child must be found: another family member, someone with a youth-serving organization, a mentor, or someone from the school.

II. A SUCCESSFUL SYSTEM IS PERFORMANCE OR OUTCOME BASED. Too often, our school staffs are asked, "Did you do what you were told?" The right question is, "Did it work?" Trying hard is not enough. What students actually know and can do is what counts. Thus, we must define, in measurable terms, the outcomes required for achieving a high-productivity economy and for maintaining our democratic institutions.

III. A SUCCESSFUL SYSTEM USES ASSESSMENT STRATEGIES AS STRONG AND RICH AS THE OUTCOMES. We must reexamine how student performance is assessed in the United States. Tests and other assessment strategies must reflect emphases on higher expectations, on thinking and integration of knowledge, on understanding main ideas, and on problem solving. We must abandon strategies that do otherwise, such as those that emphasize the ability of recall or recognition.

The ability to compare student performance at international, national, state, district, and school levels is also important. But in making those comparisons, student performance should be tested against objective criteria, not against the performance of other students. Criterion-referenced testing reveals what a student actually knows or can do, while norm-referenced testing simply tells us what he or she knows or can do in relationship to others.

Assessment inevitably influences what is taught. Thus, whether our strategies are performance based, or multiple choice, they must adequately measure the skills, knowledge, attitudes, and abilities we expect our schools to produce in their students.

IV. A SUCCESSFUL SYSTEM REWARDS SCHOOLS FOR SUCCESS, HELPS SCHOOLS IN TROUBLE, AND PENALIZES SCHOOLS FOR PERSISTENT OR DRAMATIC FAILURE. When a school succeeds, rarely is the staff or school rewarded. When a school fails, rarely is the staff or school penalized. A system built on outcomes requires a system of rewards and penalties.

In measuring success, the school's performance—not that of individual teachers—should be the standard. Performance should be defined by the progress a school makes in having all its students succeed, based on a rigorous outcome standard, when measured against the school's past performance. For instance, a successful school would be one in which the proportion of its successful students, including its at-risk students, is increased by a prescribed amount since the previous relevant assessment period.

There should be a range of rewards and sanctions. The challenge is to have alternatives and use them in ways that are more sensitive and less blunt, making certain that all parties understand the rewards and sanctions and the circumstances that give rise to each. The successful should be rewarded, but the unsuccessful must be helped more than punished.

V. A SUCCESSFUL SYSTEM GIVES SCHOOL-BASED STAFF A MAJOR ROLE IN INSTRUCTIONAL DECISIONS. Who among us is willing to be held accountable for our actions if we have little control over those actions? Who among us can legitimately deny our accountability if we have the authority and means to act? School-based accountability for outcomes and school-based authority to decide how to achieve the outcomes are intertwined. Meaningful authority could include:

A. Real involvement in the selection of school staff: the instructional staff help select the principal, the principal helps select teachers, and the principal and instructional staff help select non-certified personnel;

B. Significant budgetary control and the authority to determine curriculum, instructional practices, disciplinary measures, the school's calendar, and student and teacher assignments.

VI. A SUCCESSFUL SYSTEM EMPHASIZES STAFF DEVELOPMENT. Staff quality heavily influences school outcomes. Adequate preparation for staff will require at least four things:

A. Pre-service teacher training programs that give greater emphasis to subject matter, field experience, and effective use of technology in addition to classroom-based pedagogy;

B. Alternative certification opportunities for career changers and well-qualified non-education majors;

C. A strong staff development and training effort that includes:

- a significant research and development capacity to identify systematically those schools and instructional practices that work with all children and youth; and
- a training system of adequate depth with staff having sufficient time to participate; and

D. Selection, preparation and upgrading programs for administrators, instructional support staff, and other non-teaching personnel to assure leadership and assistance that contribute to student achievement.

VII. A SUCCESSFUL SYSTEM PROVIDES HIGH-QUALITY PRE-KINDERGARTEN PROGRAM, AT LEAST FOR EVERY DISADVANTAGED CHILD. While not a silver bullet, the evidence is very strong that a high-quality, developmentally appropriate pre-school program for disadvantaged children can in later years significantly reduce teen pregnancy, poor school performance, criminal arrest rates, drop-outs, incidence of student placement in special education and other negative and costly factors that reflect far too much student behavior today.

VIII. A SUCCESSFUL SYSTEM PROVIDES HEALTH AND OTHER SOCIAL SERVICES SUFFICIENT TO REDUCE SIGNIFICANT BARRIERS TO LEARNING. Raising our expectations for educational performance will not produce the needed improvement unless we also reduce the barriers to learning represented by poor student health, criminal behavior in schools, and inadequate physical facilities. Education is work, and the conditions needed for successful effort are no less important in the learning environment than in the American workplace.

Pre-natal care, good nutrition for young mothers and children, preventive health care, and safe child care are prerequisites for children and youth to perform at the expectation level necessary for a high-productivity economy.

At the same time, students and educators cannot be expected to perform at high levels in a work environment where drugs, crime, or poorly maintained physical facilities interfere with discipline and concentration.

Providing the needed health, social, and other services will require an unprecedented measure of collaboration between agencies and/or the realignment of governance responsibility for delivering the services successfully.

IX. A SUCCESSFUL SYSTEM USES TECHNOLOGY TO RAISE STUDENT AND TEACHER PRODUCTIVITY AND EXPAND ACCESS TO LEARNING. Technology is not a panacea. It cannot, for instance, serve as a child's advocate or give school-based staff a major role in instructional decisions. Yet technology is a critical part of a program of systemic change, for it provides the means to improve productivity and access to learning.

Several examples illustrate the point:

A. The development of skills in problem solving and critical thinking requires all students to push at their own pace beyond historical expectations. Only technology will give masses of students the necessary breadth and depth of intellectual engagement to work at different stages of development in different disciplines.

B. Many disabled students and other students at risk, who often require greater individual attention from teachers, will find greater access to learning through technology.

C. The need for information access and management will likely be greater in an outcome-oriented, student-based educational system, thus increasing the reliance on technology for both education and administration.

D. Technology will be needed to extend the breadth and depth of staff development and productivity at a time when staff are performing to meet higher expectations.

Resources and Reference Sources for the Policy Examples

The Nine Essential Components of a Successful Education System

1. A successful education system operates on four assumptions:

EVERY STUDENT CAN LEARN AT SIGNIFICANTLY HIGHER LEVELS.

Accelerated Schools Project. Henry M. Levin, Professor of Education and Economics, Stanford, and Director, Accelerated Schools Project, (415) 725-1669.

Hopfenberg, W.S., H.M. Levin, G. Meister, and J. Rogers, *Accelerated Schools* (Stanford University: Center for Educational Research at Stanford, 1990).

Maryland. Robert Gabrys, Assistant State Superintendent for School Performance, (301) 333-3866.

Utah. *Strategic Planning for Public Education Act*, Utah Code Annotated 1953, Section 53A-1a-104, 1990.

EVERY STUDENT CAN BE TAUGHT SUCCESSFULLY.

Arkansas. *Meeting the National Education Goals: Schools for Arkansas' Future*, Act 236, 78th Arkansas General Assembly, Regular Session, 1991.

Oregon. Shirley Gidley, School Reform Specialist, 21st Century Schools Council, (503) 373-7118.

Success for All. Lawrence Dolan, Research Scientist, Center for Research on Effective Schooling for Disadvantaged Students, Johns Hopkins University, (410) 516-0274.

HIGH EXPECTATIONS FOR EVERY STUDENT ARE REFLECTED IN CURRICULUM CONTENT, THOUGH INSTRUCTIONAL STRATEGIES MAY VARY.

Coalition of Essential Schools. Lisa Lasky, Communications Manager, Coalition of Essential Schools, Brown University, (401) 863-3384.

Oregon. Shirley Gidley, School Reform Specialist, 21st Century Schools Council, (503) 373-7118.

EVERY STUDENT AND EVERY PRESCHOOL CHILD NEEDS AN ADVOCATE—PREFERABLY A PARENT.

California. Vivian Burton, Coordinator, Parenting and Community Education Office, California Department of Education, (916) 323-0544.

"I Have a Dream." Anne Winters-Bishop, National Executive Director, "I Have a Dream" Foundation, (212) 736-1730.

Minnesota. Parental Leave: Barry Sullivan, Office of Government Relations, State Department of Education, (612) 296-6595.

Parental Involvement: Lois Engstrom, Manager, Community and Adult Education, (612) 297-2441.

Missouri. Mildred Winter, Executive Director, Parents as Teachers National Center, Inc., (314) 553-5738.

Project Mentor. Sarah Ann Robertson, Coordinator, Project Mentor, Austin Independent School District, (512) 499-1700 x3802.

Project Raise. Kalman R. Hettleman, Executive Director, Baltimore Mentoring Institute, (410) 685-8316.

School Development Program. James Comer, Maurice Falk Professor of the Child Study Center and Child Psychiatry, Yale University, (203) 785-2548.

2. A successful system is performance or outcome based.

Maine. Heidi McGinley, Coordinator of the Common Core of Learning, Maine State Department of Education, (207) 287-5925.

Minnesota. Joan Wallin, Supervisor, Instructional Design, Minnesota State Department of Education, (612) 296-1570.

Oregon. Joyce Reinke, Assistant Superintendent, 21st Century Schools Council, Oregon Department of Education, (503) 373-7118.

Lucinda Welch, Specialist, 21st Century Schools Council, Oregon Department of Education, (503) 373-7118.

Pennsylvania. Robert E. Feir, Executive Director, State Board of Education, (717) 787-3787.

3. A successful system uses assessment strategies as strong and rich as the outcomes.

Arizona. C. Diane Bishop, Superintendent of Public Instruction, Arizona Department of Education, (602) 542-5460.

Paul Koehler, Associate Superintendent, Arizona Department of Education, (602) 542-5754.

Charles Wiley, Testing Coordinator, Arizona Department of Education, (602) 542-3759.

Maryland. Jessie Pollack, Chief of Test Development and Administration, Maryland State Department of Education, (410) 333-2375.

Mathematical Sciences Education Board. Linda P. Rosen, Associate Director for Policy Studies, Mathematical Sciences Education Board, (202) 334-1479.

National Assessment of Educational Progress (NAEP). Gary Phillips, Associate Commissioner, Education Assessment Division, National Assessment of Educational Progress, (202) 219-1761.

National Council on Education Standards and Testing. Emily Wurtz, Senior Education Associate, National Education Goals Panel, (202) 632-0952.

New Standards Project. Jim Gilchrist, Director of Operations, New Standards Project, (412) 624-7970.

New York. Carolyn Byrne, Director, Division of Educational Testing, (518) 474-5902.

Vermont. Ross Brewer, Director of Planning and Policy Development, Vermont Department of Education, (802) 828-3135.

4. A successful system rewards schools for success, helps schools in trouble, and penalizes schools for persistent or dramatic failure.

New Jersey. John Woodbury, Deputy Commissioner of Education, New Jersey Department of Education, (609) 292-7078.

Ohio. John Goff, Deputy Director, Ohio Department of Education, (614) 466-2329.

James Romich, Consultant, Ohio Department of Education, (614) 466-2761.

South Carolina. Terry K. Peterson, Executive Director, South Carolina Business-Education Subcommittee of the Education Improvement Act and "Target 2000," (803) 734-0487.

5. A successful system gives school-based staff a major role in instructional decisions.

Dade County, Florida. Gerald O. Dreyfuss, Principal, Arvida Middle School, (305) 385-7144.

Pat Tornillo, Executive Vice President, United Teachers of Dade, (305) 854-0220.

Minnesota. Peggy Hunter, Enrollment Options Coordinator, State Department of Education, (612) 297-2241.

Becky Kelso, State Representative, Minnesota House of Representatives, (612) 296-1072.

Ted Kolderie, Senior Associate, Center for Policy Studies, (612) 224-9703.

Ember Reichgott, State Senator, Minnesota Senate, (612) 296-2889.

Rochester, New York. Ed Porter, Director of the Rochester Program, National Center on Education and the Economy, (716) 546-7620.

Joanne Scully, Supervising Director of School Improvement, Rochester City School District, (716) 262-8307.

San Diego, California. Mary Hopper, Administrator, Human Resource Services, San Diego City Schools, (619) 293-8020.

Texas. Deborah Nance, Senior Director for Institutional Development, Office of Accountability, Texas Education Agency, (512) 463-9642.

Dan Powell, Assistant Superintendent , Fort Worth Independent School District, (817) 878-3718.

6. A successful system emphasizes staff development.

California. School Level Planning: Barbara Brandes, Administrator of High School Education, Department of Education, (916) 322-5016.

Resource Agencies and Consortia: Laura Wagner, Manager of Teaching Support, Department of Education, (916) 657-5463.

Subject Matter Projects: Robert Polkinghorn, Director of University-School Education Improvement, University of California, (510) 987-9505.

National Board for Professional Teaching Standards. James Smith, Senior Vice President, National Board for Professional Teaching Standards, (313) 259-0830.

Nebraska. Melodee Landis, Director, Instructional Technology Team, Nebraska Department of Education, (402) 471-2918.

Vermont. Ross Brewer, Director of Planning and Policy Development, Department of Education, (802) 828-3135.

West Virginia. Henry Marockie, State Superintendent of Schools, West Virginia Department of Education, (304) 558-2681.

7. A successful system provides high-quality prekindergarten programs, at least for every disadvantaged child.

Connecticut. Paul Vivian, Coordinator of Family Resource Centers, Connecticut Department of Human Resources, (203) 566-8046.

New Jersey. Tynette W. Hills, Program Coordinator, Office of Early Childhood Education, Division of Educational Programs and Student Services, New Jersey Department of Education, (609) 984-3429.

Ohio. Chris Stoneburner, Director, Head Start, State of Ohio Collaboration Project, Governor's Office, (614) 644-0791.

Oregon. Dell Ford, Head Start Specialist, Oregon Department of Education, (503) 378-5585.

Success By 6. Beverly P. Propes, Director of Community Initiatives, United Way of Minneapolis Area, (612) 340-7686.

Success By 6: Interim Evaluation Report (Minneapolis: United Way of Minneapolis Area, 1991).

Success By 6: The Early Days (Minneapolis: United Way of Minneapolis Area, 1991).

Washington. Mary Frost, Children's Services Unit Manager, Department of Community Development, Washington State Department of Community Development, (206) 753-4106.

8. A successful system provides health and other social services sufficient to reduce significant barriers to learning.

California. Jane Henderson, Assistant Superintendent, Interagency Children and Youth Services Division, California Department of Education, (916) 657-3558.

Iowa. Raymond E. Morley, Consultant, Department of Education, (515) 281-3966.

New Beginnings. Jeanne Jehl, Administrator on Special Assignment, San Diego Schools, (619) 293-8371.

New Futures. William J. Rust, Director of Communications, Annie E. Casey Foundation, (800) 222-1099.

"New Futures: The Challenge of Change," *A.E.C. Focus* (a quarterly report from the Annie E. Casey Foundation), spring, 1992.

New Jersey. Edward Tetelman, Director, Office of Legal and Regulatory Affairs, New Jersey Department of Human Services, (609) 292-1617.

9. A successful system uses technology to raise student and teacher productivity and expand access to learning.

Arkansas. Cecil McDermott, Program Director, IMPAC Learning Systems, Inc., (501) 324-9652.

California. Ron A. Miles, Branch Manager, IBM EDUQUEST, (916) 326-5030.

South Carolina. Henry J. Cauthen, President and General Manager, South Carolina Educational Television, (803) 737-3240.

Texas. Geoffrey H. Fletcher, Associate Commissioner for Technology, Texas Education Agency, (512) 463-9087.

Washington. Albert S. Huff, Executive Director, Washington School Information Processing Cooperative, (206) 775-8471.

The Kentucky Approach

Steve Swift, Director of Public Information, Kentucky Department of Education, (502) 564-3421.

1. Operating Assumptions. William G. Scott, Director, Division of Student and Family Support Services, Kentucky Department of Education, (502) 564-3678.

2. Outcome-Based System. Edward Reidy, Associate Commissioner, Kentucky Department of Education, (502) 564-4394.

3. Strong and Rich Assessment Strategies. Edward Reidy, Associate Commissioner, Kentucky Department of Education, (502) 564-4394.

Scott Trimble, Division Director, Division of Accountability, Kentucky Department of Education, (502) 564-4394.

4. Rewards, Assistance, and Penalties. David Thomas, Deputy Commissioner, Learning Results Services, (502) 564-4394.

5. School-Based Decision Making. Bernie Carr, Director, Division of School Based Decision Making, Kentucky Department of Education, (502) 564-4201.

6. Staff Development. Certification: Traci Bliss, Associate Commissioner, Kentucky Department of Education, (502) 564-4606.

Professional Development: Gail Gerry, Director, Division of Professional Development, Kentucky Department of Education, (502) 564-2672.

7. High Quality Pre-Kindergarten Program. Abbie Robinson-Armstrong, Director, Division of Early Childhood, Kentucky Department of Education, (502) 564-3064.

8. Integrated Health and Social Services. Ronnie Dunn, Branch Manager, Family Resource Youth Service Centers, (502) 564-4986.

9. Technology. Joe Kirkman, Associate Commissioner, Office of Education Technology, (502) 564-4770.

Reference Materials

BellSouth Foundation, *School Governance, Management and Organization: The Key Issues for Philanthropic Investments* (BellSouth Foundation, 1991).

Boyer, Ernest, *Ready to Learn: A Mandate for the Nation* (Lawrenceville, NJ: Princeton University Press, 1991).

The Business Roundtable and the National Alliance of Business, *The Business Roundtable Participation Guide: A Primer for Business on Education*, second edition (New York: The Business Roundtable, 1991).

The Business Roundtable, *The Gap Analysis Handbook*, (Washington, DC: The Business Roundtable, November 1992).

The Commission on the Skills of the American Workforce, *America's Choice: high skills or low wages!* (Rochester, NY: National Center on Education and the Economy, 1990).

David, Jane, S. Purkey, and P.A. White, *Restructuring in progress: Lessons from pioneering districts* (Washington, DC: National Governors' Association and University of Wisconsin, Madison, Center for Policy Research in Education, 1989).

David, Jane, M. Cohen, D. Honetschalager, and Susan Traiman, *State Actions To Restructure Schools: First Steps* (Washington, DC: National Governors' Association, 1990).

Education Commission of the States, *Status of Reform 1991: A Report to the Business-Education Policy Forum* (Denver: Education Commission of the States, 1991).

Elmore, Richard, *Restructuring Schools: The Next Generation of Education Reform* (San Francisco: Jossey-Bass, 1990).

Finn, Chester, *We Must Take Charge: Our Schools and Our Future* (New York: The Free Press, 1991).

Fiske, Edward, *Smart Schools, Smart Kids* (New York: Simon & Schuster, 1991).

Fosler, Scott R., *The Business Role in State Education Reform* (New York: The Business Roundtable, 1990).

The Future of Children: School Linked Services, volume 2, number 1, spring 1992.

Gardner, Howard, *The Unschooled Mind: How Children Think and How Schools Should Teach* (New York: Harper Collins, 1991).

Goodlad, John, *The Moral Dimensions of Teaching* (San Francisco: Jossey-Bass, 1990).

Goodlad, John, *Teachers for Our Nation's Schools* (San Francisco: Jossey-Bass, 1991).

Hirsch, E.D., *Cultural Literacy: What Every American Needs to Know* (Boston: Houghton Mifflin, 1987).

Hornbeck, David W. and Lester M. Salomon (editors), "New Paradigms for Action," Chapter 13, *Human Capital and America's Future* (Baltimore: Johns Hopkins Press, 1991).

Kaplan, George R., *Images of Education: The Mass Media's Version of America's Schools* (Arlington, VA: National School Public Relations Association and Washington, DC: Institute for Educational Leadership, 1992).

Kolberg, William and Foster Smith, *Rebuilding America's Workforce* (Homewood, IL: Business One Irwin, 1992).

Kozol, Jonathan, *Savage Inequalities* (New York: Crown Publishers, 1991).

National Alliance of Business, *A Blueprint for Business on Restructuring Education* (Washington, DC: National Alliance of Business, 1989).

National Alliance of Business, *Business Strategies that Work* (Washington, DC: National Alliance of Business, 1990).

National Council on Education Standards and Testing, *Raising Standards for American Education* (Washington, DC: U.S. Government Printing Office, 1992).

National Education Goals Panel, *The National Education Goals Report 1991: Building a Nation of Learners* (Washington, DC: National Education Goals Panel, 1991).

National Governors' Association, *Educating America: State Strategies for Achieving the National Education Goals: Report of the Task Force on Education* (Washington, DC: National Governors' Association, 1990).

National Governors' Association, *From Rhetoric to Action: State Progress in Restructuring the Education System* (Washington, DC: National Governors' Association, 1991).

Osborne, David and Ted Gaebler, *Reinventing Government: How the Entrepreneurial Spirit Is Transforming the Public Sector* (Reading, MA: Addison-Wesley, 1992).

Peterson, Terry, *School Reform in South Carolina: Implications for Wisconsin's Reform Efforts* (Madison, WI: Wisconsin Center for Educational Policy at the University of Wisconsin, Madison, 1991).

Powell, A.G., Eleanor Farrar, and David Cohen, *The Shopping Mall High School: Winners and losers in the educational marketplace* (Boston: Houghton Mifflin, 1985).

Reich, Robert, *The Work of Nations* (New York: Alfred A. Knopf, 1991).

Rigden, Diane, *Business and the Schools: A Guide to Effective Programs*, second edition (Council for Aid to Education, 1992).

Schlechty, Phillip C., *Schools for the 21st Century: Leadership Imperatives for Educational Reform* (San Francisco: Jossey-Bass, 1990).

Sizer, Ted, *Horace's School: Redesigning the American High School* (Boston: Houghton Mifflin, 1992).

Smith, Marshall S. and Jennifer Ann O'Day, "Putting the Pieces Together: Systemic School Reform," CPRE Policy Brief R8-06-4/91, Consortium for Policy Research in Education, Eagleton Institute of Politics, Rutgers, New Brunswick, NJ, April 1991.

Smith, Marshall S. and Jennifer Ann O'Day, "Systemic School Reform", "The Politics of Curriculum and Testing," *Politics of Education Association Yearbook*, 1991, pp 233–67.

Timar, Thomas and David Kirp, *Managing Educational Excellence* (Philadelphia: Falmer Press, 1988).

The Twentieth Century Fund Task Force on School Governance, *Facing the Challenge* (New York: The Twentieth Century Fund Press, 1992).

Design: Cheney & Company, New Haven, CT

The Business Roundtable

Headquarters:
200 Park Avenue
New York, NY 10166
212 682-6370

Washington Office:
1615 L Street, NW
Washington, DC 20036
202 872-1260

December 1992